

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Kintley Examiner #: 90654 Date: 3/3/04
 Art Unit: DW1 Phone Number 302-1408 Serial Number: 09721550
 Mail Box and Bldg/Room Location: Room 8-39 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

STAFF USE ONLY

Searcher: Mike Nowell
 Searcher Phone #: 571-272-2538
 Searcher Location: Room 4A30
 Date Searcher Picked Up: 3/4/04
 Date Completed: 3/4/04
 Searcher Prep & Review Time: 60
 Clerical Prep Time: _____
 Online Time: 80

Type of Search

NA Sequence (#) _____
 AA Sequence (#) _____
 Structure (#) _____
 Bibliographic ☒ _____
 Litigation _____
 Fulltext _____
 Patent Family _____
 Other _____

Vendors and cost where applicable

STN 32516
 Dialog 1-1-04
 Questel/Orbit _____
 Dr Link _____
 Lexis/Nexis _____
 Sequence Systems _____
 WWW/Internet _____
 Other (specify) _____



STIC Search Report

EIC 1700

STIC Database Tracking Number: 115896

TO: Lien Tran
Location: REM 8A39
Art Unit : 1761
March 4, 2004

Case Serial Number: 09/921980

From: Michael Newell
Location: EIC 1700
REMSSEN 4A30
Phone: 571/272-2538
MNewell@uspto.gov

Search Notes

Applicants' disclosure can be found on page 74.

The STN search (File HCAPLUS) is presented first, the Dialog search of Derwent World patents and Japanese patent abstracts follows on page 64. A full search history for the STN search can be found on page 61.



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 1713

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



Mellerson, Kendra

From: Unknown@Unknown.com
Sent: Wednesday, March 03, 2004 1:27 PM
To: STIC-EIC1700
Subject: Generic form response

ResponseHeader=Commercial Database Search Request

AccessDB#= _____

LogNumber= _____

Searcher= _____

SearcherPhone= _____

SearcherBranch= _____

MyDate=Wed Mar 3 13:25:23 EST 2004

submitto=STIC-EIC1700@uspto.gov

Name=Lien Tran

Empno=70684

Phone=571-272-1408

Artunit=1761

Office=Remsen 8floor, A39

Serialnum=09/921980

PatClass=429/549

Earliest=August 3, 2000

Format1=paper

Searchtopic=Please search or a dough or batter product that is contained in a package or container in which there is a layer of oil which separates the batter or dough from a leavening agent such as baking powder or baking soda or any leavening acid or leavening base.

Comments= I am in the office on Tuesday, Wednesday and Friday; anytime is fine.

This appl. is due this bi-week; a quick turnaround will be greatly appreciated.

send=SEND

=> d his

(FILE 'HOME' ENTERED AT 14:25:58 ON 04 MAR 2004)

FILE 'REGISTRY' ENTERED AT 14:26:08 ON 04 MAR 2004

E MONOCALCIUM(W)PHOSPHATE/CN
E MONOCALCIUM PHOSPHATE/CN
L1 2 S E3
E SODIUM ACID PYROPHOSPHATE/CN
E SODIUM PYROPHOSPHATE/CN
L2 1 S E3
E SODIUM ALUMINUM PYROPHOSPHATE/CN
L3 1 S E3
E DICALCIUM PHOSPHATE/CN
L4 2 S E3 OR E4
L5 1 S SODIUM ALUMINUM PHOSPHATE/CN
E GLUCON DELTA LACTONE/CN
E GLUCON LACTONE/CN
E GLUCONLACTONE/CN
E POTASSIUM HYDROGEN TARTRATE/CN
L6 1 S E3
E BAKING/CN
L7 1 S E4
L8 8 S L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7

FILE 'HCAPLUS' ENTERED AT 14:35:55 ON 04 MAR 2004

L9 11366 S BATTER OR DOUGH#
L10 495103 S FLOUR OR SUGAR OR EGG OR EGGS OR MILK OR SORBIC(W)ACID
L11 61382 S PANCAKE? OR BREAD# OR BROWNIE# OR MUFFIN# OR COOKIE# OR
L12 1172770 S FAT OR FATTY OR WAX OR WAXES OR WAXY OR OIL# OR BUTTER#
L13 37371 S BAKING(W) (SODA# OR POWDER# OR ACID) OR LEAVENING(2A) (AG
L14 2489 S SODIUM(W)ALUMINUM(W)PHOSPHATE? OR GLUCON?(2A) LACTON? OR
L15 39400 S L13 OR L14
L16 631454 S AGITAT? OR DISRUPT? OR SHAKE# OR SHAKING OR MIX OR MIXE
L17 1322368 S SEPARAT? OR ISOLAT? OR ENCAPSULAT? OR COMPARTMENTAL?
L18 5 S L9 AND L15 AND L16 AND L17
L19 5262 S DOUGH/IT
L20 427 S (LEAVENING(W)AGENTS)/IT
L21 7731 S (BAKERY(W)PRODUCTS)/IT
L22 57 S L19 AND L20 AND L21
L23 10 S L22 AND L16
L24 14 S L18 OR L23
L25 47 S L22 NOT L24
L26 61 S L24 OR L25
L27 27 S L26 AND (OIL OR OILS OR SHORTENING)
L28 28 S L25 NOT (L27 OR L24)
L29 19 S L26 NOT (L24 OR L28)
L30 61 S L26 AND L15

L31 0 S L30 NOT L26

=> d 124 1-14 cbib abs hitstr hitind

L24 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
2004:96023 Document No. 140:145141 Method of preparing a food
intermediate such as a **dough** under a controlled
atmosphere. Thorson, James S. (USA). U.S. Pat. Appl. Publ. US
2004022915 A1 20040205, 27 pp. (English). CODEN: USXXCO.
APPLICATION: US 2002-209706 20020801.

AB The invention provides a method of **mixing dough**
that includes combining ingredients for the **dough** in a
mixing system that is configured so that the atm. therein
can be controlled, controlling the atm. wherein said controlled atm.
has at least about 80% nitrogen, and **mixing** in the
controlled atm. to form a resulting **dough**. Also included
are methods having the steps of combining ingredients in a
mixing system that is configured to be able to control the
atm., and having a gas feed supplied by a nitrogen tank, purging the
atm. of air, controlling the atm. so that it includes at least about
90% nitrogen, and **mixing** the ingredients in the controlled
atm. to form a resulting **dough**. The invention also
provides improved methods of **mixing dough** that
include combining ingredients for the **dough** in a
mixing system that is configured so that its atm. can be
controlled, controlling the atm. in the **mixing** system, and
mixing the ingredients in the controlled atm. to form a
resulting **dough**, wherein the **dough** or baked
products thereof have improved characteristics.

IC ICM A21D010-00

NCL 426549000

CC 17-11 (Food and Feed Chemistry)

ST **dough mixing** bakery product nitrogen atm

IT **Bakery products**

(bagels, **dough** for; method of prepg. a food
intermediate such as a **dough** under a controlled atm.)

IT Food functional properties

(extensibility; method of prepg. a food intermediate such as a
dough under a controlled atm.)

IT Food

(intermediates; method of prepg. a food intermediate such as a
dough under a controlled atm.)

IT Energy

(mech., of **mixing**, redn. of; method of prepg. a food
intermediate such as a **dough** under a controlled atm.)

IT Air

Atmosphere (environmental)

Bakery products

Bread

Dough

Food functional properties

Food processing

Leavening agents

Mixing

Wheat flour

(method of prepg. a food intermediate such as a **dough** under a controlled atm.)

IT **Bakery products**

(rolls; method of prepg. a food intermediate such as a **dough** under a controlled atm.)

IT 7727-37-9, Nitrogen, biological studies

(atm.; method of prepg. a food intermediate such as a **dough** under a controlled atm.)

IT 497-19-8, Soda, biological studies

(**encapsulated** and unencapsulated; method of prepg. a food intermediate such as a **dough** under a controlled atm.)

IT 52-90-4, L-Cysteine, biological studies 124-38-9, Carbon dioxide, biological studies 7440-01-9, Neon, biological studies 7440-37-1, Argon, biological studies 7440-59-7, Helium, biological studies 7782-44-7, Oxygen, biological studies 24634-61-5, Potassium sorbate 652973-42-7, Protase 2X 652973-45-0, Nubake (method of prepg. a food intermediate such as a **dough** under a controlled atm.)

L24 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:459371 Document No. 139:291361 Effect of proteolytic starter cultures as leavening agents of pizza dough. Pepe, O.; Villani, F.; Oliviero, D.; Greco, T.; Coppola, S. (Dipartimento di Scienza degli Alimenti, Universita degli Studi di Napoli Federico II, Portici, I-80055, Italy). International Journal of Food Microbiology, 84(3), 319-326 (English) 2003. CODEN: IJFMDD. ISSN: 0168-1605. Publisher: Elsevier Science Ltd..

AB Lactic acid bacteria (LAB) and yeasts were selected on the basis of in vitro proteolytic activity against wheat gluten protein and then assayed as leavening agents for pizza dough. Trials were carried out to compare a proteolytic starter (Prt+), consisting of Lactobacillus sakei T56, Weissella paramesenteroides A51 and Candida krusei G271, and a non-proteolytic starter (Prt-), consisting of Lb. sakei T58, W. paramesenteroides A58 and Saccharomyces cerevisiae T22. The proteolytic activity of the starter cultures was monitored immediately after **mixing** of the dough and throughout the fermn. process. The proteolytic activity was assessed by analyzing the salt-sol. protein (SSP) and the dioxane-sol. protein (DSP) fractions of the pizza dough by discontinuous SDS-PAGE. Only the Prt+ starter exhibited considerable qual. and quant. changes in the

electrophoretic patterns of the protein fractions extd. After the fermn., the Prt+ and Prt- doughs were tested to evaluate the influence of the proteolytic activity on the mech. properties of the dough before and after baking. Indications emerged suggesting an influence of the proteolytic activity on the viscoelasticity of pizza dough. The pizza dough with Prt+ strains showed an increase in viscous properties during the fermn. as compared with the Prt- dough. Moreover, an increase in the firmness of the crumb was obsd. in Prt+ baked pizza dough.

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**

(pizza; proteolytic starter culture effect as **leavening agents** of pizza dough)

IT *Candida krusei*

Dough

Enterococcus faecium

Food viscoelasticity

Lactic acid bacteria

Lactobacillus plantarum

Lactobacillus sakei

Leavening agents

Leuconostoc pseudomesenteroides

Protein degradation

Saccharomyces cerevisiae

Weissella paramesenteroides

Yeast

(proteolytic starter culture effect as **leavening agents** of pizza dough)

IT Proteins

(salt-sol.; proteolytic starter culture effect as **leavening agents** of pizza dough)

L24 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:334414 Document No. 138:303072 Aerated flake shortening for bakery products. Huxel, Edward T. (USA). U.S. Pat. Appl. Publ. US 2003082289 A1 20030501, 12 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-999735 20011024.

AB An aerated flaked fat product is obtained by the incorporation of gas to produce a shortening for use in baking. The aerated flake product permits the incorporation of addnl. air spaces into baked pastry and dough products while allowing a redn. in the amt. of flaked fat product incorporated into the dough **mix**. Thus, an oil (e.g., hydrogenated soybean oil) or oil blend is cooled to a temp. below the m.p. while providing continuous **agitation**. The cooled oil is then injected with a gas or air and the oil and gas mixt. is then pushed through an extruder to divide and distribute the gas in the oil mixt., after which the oil and gas mixt. is remixed prior to cooling the oil and gas mixt. on a

suitable flaking app., which is selected according to the m.p. characteristics of the oil or oil blend.

IC ICM A23D007-00

NCL 426601000

CC 17-9 (Food and Feed Chemistry)

IT Aeration

Bakers' yeast

Bakery products

Dough

Leavening agents

Shortening

(aerated flake shortening for **bakery products**

)

IT Fats and Glyceridic oils, biological studies

(aerated flake shortening for **bakery products**

)

IT Cooking

(baking; aerated flake shortening for **bakery products**)

IT Cooling

(flaking combined with; aerated flake shortening for **bakery products**)

IT Soybean oil

(hydrogenated; aerated flake shortening for **bakery products**)

IT 124-38-9, Carbon dioxide, biological studies

(aerated flake shortening for **bakery products**

)

L24 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:909454 Document No. 138:270568 Quality of rye flour starter prepared with some lactic acid bacteria. Michalska, Urszula; Zawirska-Wojtasiak, Renata; Wasowicz, Erwin (Institute of Food Technology, August Cieszkowski Agricultural University of Poznan, Poznan, Pol.). Polish Journal of Food and Nutrition Sciences, 11(3), 65-74 (English) 2002. CODEN: PJFSE7. ISSN: 1230-0322. Publisher: Polish Academy of Sciences, Institute of Animal Reproduction and Food Research, Division of Food Science.

AB The purpose of this work was to characterize flavor compds. from rye flour leavens started with six mixed lactic acid bacteria (LAB). This material after fermn. is used in Poland for prepg. sour soup (Polish "zurek"). The volatiles were **isolated** after 1, 2 and 3 day of fermn. using static and dynamic headspace techniques; org. acids, pH, titratable acidity and bacteria count were monitored. Gas chromatog. analyses were performed with capillary columns of different polarities connected to flame ionization detector, electron capture detector and mass spectrometer. The org. acids were analyzed by high performance liq. chromatog. with HPX-87H

column and Dual Adsorbance Detector. Totally 18 compds. were identified including 5 esters, 4 alcs., 6 carbonyls, 2 org. acids. Et lactate, ethanol, acetoin, lactic acid and acetic acid were prevailing compds. present in ppm levels. The no. of lactic acid bacteria and org. acid prodn. were correlated. Sensory quality of leavens aromas was elucidated by sensory descriptive method. Concerning all the data measured it can be concluded that the optimum quality results were obtained in the leaven started with **mix** of three strains of *Lactococcus lactis* ssp. *lactis*.

CC 17-8 (Food and Feed Chemistry)

Section cross-reference(s): 10

IT Fermentation

Flavor

Lactic acid bacteria

Lactobacillus casei

Lactobacillus paracasei

Lactobacillus plantarum

Lactococcus lactis cremoris

Lactococcus lactis lactis

Leavening agents

Odor and Odorous substances

(flavor compds. of sourdough from rye flour fermented with mixed lactic acid bacteria)

IT **Dough**

(sourdough; flavor compds. of sourdough from rye flour fermented with mixed lactic acid bacteria)

L24 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:705200 Document No. 137:246842 Manufacturing method of cookies using yam for health improvement. Jung, Gu Min; Kwon, Jeong Suk (Kyong Buk Agricultural Technology Administration, S. Korea). Repub. Korean Kongkae Taeho Kongbo KR 2001009456 A 20010205, No pp. given (Korean). CODEN: KRXXA7. APPLICATION: KR 1999-27821 19990709.

AB A manufg. method of cookies using a yam is provided to improve health. A yam is dried with hot-air or freezing and sifted to make powder. The yam powder and flour are mixed in a predetd. **mixing** rate. Sugar, skim milk, baking powder and freeze dried egg are mixed by sifting in a predetd. **mixing** rate and added to make a cream state. Salt water is added to the mixt. and kneaded to make dough for a predetd. time. The dough is stretched by a push stick and cut in a cylindrical shape to bake for a predetd. time. Flour and yam powder are mixed in a ratio of 100:5-20. Comparing to 100% of the mixt., the dough contains 30% of sugar, 1% of skim milk, 2% of baking powder, 2% of frozen dried egg, 30% of shortening and 1% of salt.

IC ICM A23G003-00

CC 17-11 (Food and Feed Chemistry)

IT **Leavening agents**
(baking powder; cookies manufg. using yam for health improvement)

IT **Dough**
Freeze drying
Health food
Shortening
Wheat flour
Yam (Dioscorea)
(cookies manufg. using yam for health improvement)

IT **Bakery products**
(cookies; cookies manufg. using yam for health improvement)

L24 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:331965 Document No. 136:324538 Co-processed emulsifier/carrier
systems for full-fat farinaceous baked goods. Grazela, Andrew J.;
Morrison, Neil; Amankonah, Ofori; Coleman, Gerald (CP Kelco U.S.
Inc., USA). PCT Int. Appl. WO 2002034052 A2 20020502, 11 pp.
DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR,
BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW:
AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB,
GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR.
(English). CODEN: PIXXD2. APPLICATION: WO 2001-US32561 20011022.
PRIORITY: US 2000-PV242439 20001024.

AB Emulsifiers are co-processed with a carrier to produce a fine
powder. The fine powder is added to the dry **mix** portion
of full-fat baked good formulations, such as full-fat yellow layer
cake formulations. Compared to the addn. of dry dairy protein and
powd. emulsifiers sep., **batter** aeration is enhanced, cake
vol. is increased, a finer and more even crumb structure with softer
texture is produced, and storage qualities are improved. Thus, a
cake formulation includes sugar 31.2, cake flour 21.8, Simplex 720
2.6, dried whole eggs 2.0, **baking powder** 1.3,
salt 0.7, xanthan gum 0.1, shortening 10.9, and water 29.4%.

IC ICM A21D002-16
ICS A21D002-18; A21D002-26; A21D002-32; A21D010-00

CC 17-11 (Food and Feed Chemistry)

ST cake **mix** emulsifier

IT **Leavening agents**
(baking powder; co-processed emulsifier and
carrier systems for full-fat farinaceous baked goods)

IT Bakery products
(cakes, **mix**; co-processed emulsifier and carrier
systems for full-fat farinaceous baked goods)

IT Cereal (grain)

Dairy products
 Drying
 Emulsifying agents
 Encapsulation
 Food texture
 Gums and Mucilages
 Homogenization
 Hydrocolloids
 Melting
 Milk
 Milling (size reduction)
 Shortening
 Storage
 Syrups (sweetening agents)
 Thickening agents
 Wheat
 Wheat flour
 Whey
 (co-processed emulsifier and carrier systems for full-fat
 farinaceous baked goods)

L24 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:142447 Document No. 136:182905 Mineral-enhanced bakery products.
 Dixon, Edge Joe (Maldonado, Alfonso, USA; Marquez, Joaquim A.). PCT
 Int. Appl. WO 2002013626 A1 20020221, 20 pp. DESIGNATED STATES: W:
 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR,
 CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
 IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
 MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY,
 DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT,
 SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO
 2000-US22354 20000815.

AB A wheat flour, and dough made from the flour, are produced by using
 5-50% (preferably 25-35%) by wt. middlings (e.g., from the first and
 second breaks) added to straight flour, patent flour, break flour,
 or clear flour. The flour with middlings can hold more free
 moisture, and at least an addnl. 2-20% by wt. dietary minerals (such
 as calcium, zinc, iron, manganese, phosphorus, etc.) and(or) fibers,
 and(or) other edible materials, can be added without disturbing the
 fermn. or baking processes. For example, bread having $\geq 50\%$
 (e.g., 50-200%) of the RDA of calcium per 32 gm slice may be
 produced without emulsifiers, calcium citrate, or other equiv. chem.
 additives. Thus, a bread **mix** may contain calcium 10.0781,
 iron 0.0447, fiber 4.0, middlings 40, and bakers' flour 45.8772%, to
 which sugar, salt, whey, and yeast are added.

IC ICM A23L001-10

ICS A21D002-02; A21D002-18; A21D010-00; A21D013-00
CC 17-11 (Food and Feed Chemistry)
IT Mineral elements, biological studies
 (bakery products enhanced with)
IT Cooking
 (baking; mineral-enhanced **bakery products**)
IT **Bakery products**
 Bread
 Dietary fiber
 Dough
 Emulsifying agents
 Leavening agents
 Wheat flour
 (mineral-enhanced **bakery products**)
IT **Bakery products**
 (pizza; mineral-enhanced **bakery products**)
IT 59-30-3, Folic acid, biological studies 7439-89-6, Iron,
biological studies 7439-96-5, Manganese, biological studies
7440-09-7, Potassium, biological studies 7440-47-3, Chromium,
biological studies 7440-50-8, Copper, biological studies
7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological
studies 7553-56-2, Iodine, biological studies 7693-13-2, Calcium
citrate 7723-14-0, Phosphorus, biological studies 7782-49-2,
Selenium, biological studies
 (mineral-enhanced **bakery products**)

L24 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
2001:114912 Document No. 134:146786 Shelf-stable complete food pre-
mixes. Ekanayake, Athula; Bunke, Paul Ralph; Smith, Kenneth
Thomas (The Procter & Gamble Co., USA). PCT Int. Appl. WO
2001010228 A1 20010215, 29 pp. DESIGNATED STATES: W: BR, CA, CN,
JP, MX; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO
1999-US23691 19991012. PRIORITY: US 1999-371557 19990810.
AB Shelf-stable complete pre-**mixes** comprise two or more
components. The components are chem. and microbially stable. At
least one component is a high-water-activity liq. component having a
pH greater than 4.5. The components, when combined, provide all
ingredients necessary to form uncooked **mixes** or food and
beverage products. Thus, the aq. component includes sugar 21.40,
salt 0.60, dried whole egg white 2.00, xanthan 0.02, potassium
sorbate 0.07 and water 34.48%. The low water-activity component
includes flour 31.1, shortening/emulsifier 7.51, soda 0.88, sodium
aluminum phosphate 0.62, dextrose 0.62, dried blueberries 0.36, and
citric acid 0.25%.
IC ICM A21D010-00
ICS A23P001-00; A23L001-24; A23L001-39; A23L002-38; B65D081-32
CC 17-14 (Food and Feed Chemistry)

IT Food
(batter; shelf-stable complete food pre-mixes)

IT Bakery products
(brownies, waffles, pretzels; shelf-stable complete food pre-mixes)

IT Bakery products
(cakes; shelf-stable complete food pre-mixes)

IT Bakery products
(cookies; shelf-stable complete food pre-mixes)

IT Bakery products
(crackers; shelf-stable complete food pre-mixes)

IT Bakery products
(doughnuts; shelf-stable complete food pre-mixes)

IT Medical goods
(dressings; shelf-stable complete food pre-mixes)

IT Shortening
(emulsifier; shelf-stable complete food pre-mixes)

IT Sauces (condiments)
(gravy; shelf-stable complete food pre-mixes)

IT Bakery products
(muffins; shelf-stable complete food pre-mixes)

IT Beverages
(orange drinks; shelf-stable complete food pre-mixes)

IT Bakery products
(pancakes; shelf-stable complete food pre-mixes)

IT Antimicrobial agents
Beverages
Coffee products
Dough
Egg white
Emulsifying agents
Food preservation
Leavening agents
Packaging process
Sauces (condiments)
Soups
Thickening agents
Wheat flour
(shelf-stable complete food pre-mixes)

IT Acids, biological studies
Carbohydrates, biological studies
Fats and Glyceridic oils, biological studies
Proteins, general, biological studies
(shelf-stable complete food pre-mixes)

IT 7732-18-5, Water, biological studies
(activity; shelf-stable complete food pre-mixes)

IT 7785-88-8, Sodium aluminum phosphate 24634-61-5, Potassium sorbate
(leavening agent; shelf-stable complete food pre-mixes)

IT 50-21-5, Lactic acid, biological studies 77-92-9, Citric acid, biological studies 90-80-2, 8-Gluconolactone 7664-38-2, Phosphoric acid, biological studies 11138-66-2, Xanthan (shelf-stable complete food pre-mixes)

L24 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:522230 Document No. 133:221846 Effects of leavening acids and dough temperature in wheat flour tortillas. Cepeda, Minerva; Waniska, Ralph D.; Rooney, Lloyd W.; Bejosano, Feliciano P. (Cereal Quality Laboratory, Dept. of Soil & Crop Sciences, Texas A and M University, College Station, TX, 77843-2474, USA). Cereal Chemistry, 77(4), 489-494 (English) 2000. CODEN: CECHAF. ISSN: 0009-0352. Publisher: American Association of Cereal Chemists.

AB Functionality of four leavening acids (sodium aluminum phosphate [SALP], sodium aluminum sulfate [SAS], monocalcium phosphate [MCP] and sodium acid pyrophosphate [SAPP-28]) was evaluated during processing of wheat flour tortillas. Formulas were optimized to yield opaque, large-diam. tortillas with pH 5.9-6.1. Each leavening acid and sodium bicarbonate was first evaluated at 38°C and then evaluated in combination with fumaric acid at 34 and 38°C. Ionic and pH interactions of leavening salts adversely affected dough properties and resting time. Opacity and pH of tortillas prepd. with MCP was lower than for other treatments. Higher dough temp. required more leavening acid and base to compensate for some of the loss of CO₂ incurred during dough **mixing** and resting at 38°C. The addn. of fumaric acid decreased the amt. of leavening acid, the dough-resting time and tortilla pH, and improved storage stability. Combinations of MCP, SALP (or SAS), and fumaric acid produced dough and tortillas with good qualities. Tortillas prepd. using SALP (or SAS) and fumaric acid tended to be of better quality.

CC 17-11 (Food and Feed Chemistry)

IT **Dough**

Leavening agents

Wheat flour

(leavening acids and **dough** temp. effect on wheat flour tortillas)

IT **Bakery products**

(tortillas; leavening acids and **dough** temp. effect on wheat flour tortillas)

IT 110-17-8, Fumaric acid, biological studies 144-55-8, Sodium bicarbonate, biological studies 7758-16-9 7758-23-8, Monocalcium phosphate 7785-88-8, Sodium aluminum phosphate 10102-71-3, Sodium aluminum sulfate (leavening acids and **dough** temp. effect on wheat flour tortillas)

L24 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:84557 Document No. 132:107196 Chemically leavened dough or bakery product. Heidolph, Barbara B.; Corliss, Glenn; Book, Sharon (Solutia Inc., USA). PCT Int. Appl. WO 2000004782 A1 20000203, 41 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US16568 19990721. PRIORITY: US 1998-94050 19980724.

AB Chem. leavened bakery products have characteristics similar to bakery products that have been yeast leavened. The bakery products are obtained without utilizing yeast as the source of carbon dioxide for leavening. Chem. leavened dough may be heated as a fresh dough, or refrigerated or frozen and thereafter heated to prep. a bakery product. Multi-part dry **mixes** or compns. are useable for prepg. such chem. leavened bakery products. Thus, sodium aluminum phosphate may be used a heat-activated leavening agent and glucono- δ -lactone may be used as a slow-release leavening agent.

IC ICM A21D002-02

ICS A21D008-02; A21D010-00; A21D010-02; A21D010-04

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**

Bread

Dough

Leavening agents

(chem. leavened **dough** or bakery product)

IT Frozen foods

Frozen foods

(frozen **dough**; chem. leavened **dough** or bakery product)

IT **Dough**

Dough

(frozen; chem. leavened **dough** or bakery product)

IT Acids, biological studies

(**leavening agents**; chem. leavened **dough** or bakery product)

IT 90-80-2, Glucono- δ -lactone 110-17-8, Fumaric acid, biological studies 144-55-8, Sodium bicarbonate, biological studies 298-14-6, Potassium bicarbonate 471-34-1, Calcium carbonate, biological studies 3812-32-6, Carbonate, biological studies 7757-93-9, Dicalcium phosphate 7758-16-9 7758-23-8, Monocalcium phosphate 7785-88-8, Sodium aluminum phosphate 10102-71-3, Sodium aluminum sulfate 13092-66-5 (chem. leavened **dough** or bakery product)

L24 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
1999:422644 Document No. 131:44047 Cake dough prepared by initial
foaming and subsequent **mixing** with oil. Pillard, Laurent
(Groupe Danone S. A., Fr.). Fr. Demande FR 2772234 A1 19990618, 33
pp. (French). CODEN: FRXXBL. APPLICATION: FR 1997-15698 19971211.
AB An aerated cake dough is prepd. in two steps: an initial foaming
procedure and a subsequent step in which oil is incorporated,
preferably by using a static mixer to increase lightness of the
finished product.
IC ICM A21D008-02
ICS A21D002-16; A21D013-08
CC 17-11 (Food and Feed Chemistry)
ST cake dough foaming **mixing** oil
IT **Leavening agents**
(baking powder; cake **dough** prepd. by initial foaming
and subsequent **mixing** with oil)
IT **Dough**
Egg, poultry
Emulsifying agents
Mixers (processing apparatus)
Wheat flour
(cake **dough** prepd. by initial foaming and subsequent
mixing with oil)
IT Fats and Glyceridic oils, biological studies
(cake **dough** prepd. by initial foaming and subsequent
mixing with oil)
IT **Bakery products**
(cakes; cake **dough** prepd. by initial foaming and
subsequent **mixing** with oil)
IT **Bakery products**
(cookies; **dough** prepd. by initial foaming and
subsequent **mixing** with oil)
IT Syrups (sweetening agents)
(glucose; cake **dough** prepd. by initial foaming and
subsequent **mixing** with oil)
IT 50-99-7, Glucose, biological studies 57-50-1, Sucrose, biological
studies 7647-14-5, Sodium chloride, biological studies
(cake **dough** prepd. by initial foaming and subsequent
mixing with oil)

L24 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:157511 Document No. 128:191922 Manufacture of baked and
low-temperature preserved dough without fermentation process.
Harlaux, Ginetto; Ferrari Philippe, Fabiana; Penet, Styvie (Societe
des Produits Nestle S. A., Switz.). Jpn. Kokai Tokkyo Koho JP
10066499 A2 19980310 Heisei, 5 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1997-227661 19970825. PRIORITY: EP 1996-202355

19960826.

- AB The title dough is manufd. by **mixing** flour 1000, NaCl 10-40, baking powder 5-50, egg 0-350, fats/oils 10-700, milk protein 50-150, inactivated fermn. agent (e.g. yeast) 5-30, water 400-800 g, and other ingredients at a room temp., baking the dough, and preserving the expanded dough at -40 to 10°. The dough is easily manufd. and reheated by a microwave oven to make bakery products with soft texture, e.g. tart.
- IC ICM A21D002-08
ICS A21D008-00
- CC 17-11 (Food and Feed Chemistry)
- IT **Leavening agents**
(baking powder; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT Frozen foods
Frozen foods
(frozen **dough**; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT **Dough**
Dough
(frozen; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT Yeast
(inactivated; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT **Bakery products**
Margarine
Wheat flour
(manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT Carbohydrates, biological studies
Fats and Glyceridic oils, biological studies
Sunflower oil
(manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT Cooking
(microwave; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT Proteins, general, biological studies
(milk; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT **Dough**
(refrigerated; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT Proteins, specific or class
(whey; manuf. of baked and low-temp. preserved **dough** without fermn. process)
- IT 57-50-1, Sucrose, biological studies 63-42-3, Lactose 90-80-2,

Glucono- δ -lactone 144-55-8, Sodium bicarbonate, biological studies 2466-09-3D, Pyrophosphoric acid, salt 7647-14-5, Sodium chloride, biological studies 9050-36-6, Maltodextrin 68424-04-4, Polydextrose
(manuf. of baked and low-temp. preserved **dough** without fermn. process)

L24 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
1978:168657 Document No. 88:168657 Fibrous meat analog product. Anon. (UK). Research Disclosure, 167, 42-3 (English) 1978. CODEN: RSDSBB. ISSN: 0374-4353.

AB A meat substitute is improved by taking the protein **dough** unidirectional parallel fibers, breaking them into discrete fibrous bands, and binding a mixt. of these strands with an edible binding material. The product has a texture more closely resembling meat than the intermediate parallel fibers. Thus, a protein **dough** is prepd. by **mixing** soybean protein **isolate** 200, egg white solids 18.5, **baking powder** 9.6 gelatin 9.6, beef flavoring 19.5, caramel coloring 2.3 g and adding 100 g soybean oil (I no. 107) and then 250 g hot water (135 °F). The **dough** was heated in a water bath for 1 h so that it expanded parallel to the walls of the container. The material was then passed through corrugated rollers so that the fibrous structure is parallel to the ribs of the roller and the discrete strands produced are made into tows and coated with soybean protein **isolate** 10, hydrogenated vegetable oil 20, and H₂O 70%. The product is heated at 250 °F for 10 min to heat-set the binder and give a product similar to chicken. A similar product was produced from wheat gluten.

CC 17-4 (Foods)

L24 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
1974:81116 Document No. 80:81116 Ready-to-use **batter** product. Earle, Roland D.; Baum, Morton S. U.S. US 3784710 19740108, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1971-193586 19711028.

AB The **batter** in an aerosol container consists of flour, a **leavening agent encapsulated** in Crisco shortening or a whipping gas (N₂O) to provide leavening, a heat coagulable binding agent (egg albumen, yolk, or mixts. thereof), carrageenan to prevent settling, 10-20% by wt. of alc., and water. The propellant gas is CO₂. The alc. inhibits bacterial growth and prevents an increase of viscosity of the mixt. by controlling the swelling of the flour by the water. Two pancake **mixes** were thus prepd. and tested for bacterial content to show that the alc. content must be $\geq 10\%$.

IC A21D
NCL 426128000

CC 17-4 (Foods)
ST aerosol **batter** alc; pancake **batter** aerosol
IT Bakery products
(pancakes, aerosol **batter** for)
IT 64-17-5, biological studies 9000-07-1
(aerosol **batter** contg., for pancakes)

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L28 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
2004:17347 Document No. 140:76340 Alternan-containing dough and
procedure for the production of bakery products. Popper, Lutz
(Stern-Enzym GmbH & Co. KG, Germany). Ger. DE 10209629 B3 20040108,
7 pp. (German). CODEN: GWXXAW. APPLICATION: DE 2002-10209629
20020305.
AB The subject of the invention is a procedure for the prodn. of bakery
products as well as unbaked doughs. Alternan and/or an
alternan-producing enzyme is added to the dough used for the bakery
products. The inventive unbaked product contains the enzyme
alternan sucrase. The shelf life of the inventive bakery products
is clearly improved.
IC ICM A21D002-18
ICS A21D008-04
CC 17-11 (Food and Feed Chemistry)
IT **Bakery products**
Bread
Dough
Flours and Meals
Food preservatives
Leavening agents
Water binding (food)
Wheat flour
(alternan-contg. **dough** and procedure for the prodn. of
bakery products)
IT Enzymes, biological studies
(alternan-producing; alternan-contg. **dough** and
procedure for the prodn. of **bakery products**)
IT Flours and Meals
(barley; alternan-contg. **dough** and procedure for the
prodn. of **bakery products**)
IT Flours and Meals
(corn; alternan-contg. **dough** and procedure for the
prodn. of **bakery products**)
IT Malt
(ext.; alternan-contg. **dough** and procedure for the
prodn. of **bakery products**)
IT Barley

Corn

Potato (Solanum tuberosum)

Rice (Oryza sativa)

Rye

(flour and meal; alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

IT Oat

(flour; alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

IT Flours and Meals

(oat flour; alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

IT Flours and Meals

(potato; alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

IT Flours and Meals

(rice; alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

IT Flours and Meals

(rye; alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

IT 9000-90-2, α -Amylase 9000-91-3, β -Amylase 9001-02-9, Carbohydrazase 9001-62-1, Lipase 9025-56-3, Hemicellulase 9032-08-0, Glucoamylase 9035-73-8, Oxidase 9075-68-7, Pullulanase 89017-91-4, Glucansucrase 100630-46-4, Alternan sucrase 136510-13-9, Alternan

(alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

IT 69-79-4, Maltose

(products contg.; alternan-contg. **dough** and procedure for the prodn. of **bakery products**)

L28 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:836730 Document No. 139:307048 Antidiabetic bran-free flour for the production of bakery products, especially bread, pastries and cakes. Kovacs, Zsuzsa; Varga, Laszlo; Acs, Peterne (Gabonatermesztes Kutato Koezhasznu Tarsasag, Hung.; Novoback Kereskedelmi es Szolgaltato Kft.). PCT Int. Appl. WO 2003086083 A1 20031023, 28 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-HU28 20030415. PRIORITY: HU 2002-200201270 20020418.

- AB The invention relates to bran-free diabetic flour or flour mixt. for the prodn. of baking industry products, esp. bread, pastries and cakes contg. 30-80 % wheat flour, 15-40 % gluten flour, 2-10 % guar flour and advantageously 5-15 % rye flour, as well as known baking industry taste, aroma, stabilizer and other additives. In the procedure according to claim 1, water and known leavening material when required are made into products using known baking industry procedures. The additive mixt. can contain 20-60 % gluten flour, 4-30 % guar flour and advantageously 5-25 % rye flour, as well as known baking industry taste, aroma, stabilizer and other additives as required. The additive mixt. according to claim 3 is added to usual baking industry basic materials, and the finished product is made using known baking industry procedures.
- IC ICM A21D002-18
ICS A21D002-26; A21D013-06; A21D013-08
- CC 17-11 (Food and Feed Chemistry)
- IT Antidiabetic agents
 Bakery products
 Bread
 Dough
 Flavor
 Food additives
 Health food
 Human
 Hyperglycemia
 Leavening agents
 Odor and Odorous substances
 Stabilizing agents
 Wheat bran
 Wheat flour
 (antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT **Bakery products**
 (biscuits; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT **Bakery products**
 (buns; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT **Bakery products**
 (cakes; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT Rye
 (flour and meal; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)

- IT Glutens
(flour; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT Diabetes mellitus
(non-insulin-dependent; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT **Bakery products**
(pastries; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT **Bakery products**
(rolls; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT Flours and Meals
(rye; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT 50-99-7, D-Glucose, biological studies
(blood; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- IT 9000-30-0, Guar gum
(flour; antidiabetic bran-free flour for the prodn. of **bakery products**, esp. bread, pastries and cakes)
- L28 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:673668 Document No. 139:196638 Fresh roll type bakery products enriched with functional nutritional supplements as well as baking ingredients for their production.. (Zwicker, Horst, Germany). Ger. Gebrauchsmusterschrift DE 20307772 U1 20030828, 12 pp. (German). CODEN: GGXXFR. APPLICATION: DE 2003-20307772 20030519.
- AB Fresh bakery products based on conventional roll type dough contain functional nutritional supplements.
- IC ICM A21D013-00
ICS A21D002-02; A21D002-14; A21D002-18
- CC 17-11 (Food and Feed Chemistry)
- IT **Dough**
Food additives
Leavening agents
Wheat flour
(fresh roll type **bakery products** enriched with functional nutritional supplements as well as baking ingredients for their prodn.)
- IT Aframomum melegueta

- (meal; fresh roll type **bakery products** enriched with functional nutritional supplements as well as baking ingredients for their prodn.)
- IT Fatty acids, biological studies
(polyunsatd., n-3; fresh roll type **bakery products** enriched with functional nutritional supplements as well as baking ingredients for their prodn.)
- IT Dietary fiber
(potato; fresh roll type **bakery products** enriched with functional nutritional supplements as well as baking ingredients for their prodn.)
- IT **Bakery products**
(rolls; fresh roll type **bakery products** enriched with functional nutritional supplements as well as baking ingredients for their prodn.)
- IT 59-30-3, Folic acid, biological studies 7440-66-6, Zinc, biological studies 7782-49-2, Selenium, biological studies 9005-25-8, Starch, biological studies 9041-22-9, β -Glucan 9051-97-2 9051-98-3, β -1,4-Glucan 37361-00-5, β -1,6-Glucan
(fresh roll type **bakery products** enriched with functional nutritional supplements as well as baking ingredients for their prodn.)
- L28 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:633062 Document No. 139:148834 Propylene glycol alginate for dough product texture improvement.. Goedecken, Douglas Lee; Weber, Jean Louise; Thorson, James Stuart (USA). U.S. Pat. Appl. Publ. US 2003152667 A1 20030814, 9 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-76127 20020214.
- AB The present invention provides a dough compn. comprising propylene glycol alginate in an amt. of 0.005 to 0.2% by wt. of the total dough compn. Baked dough products according to present invention are springy in texture. Methods of prepg. a baked dough product using the dough compn. as described, and products made by this method are also provided.
- IC ICM A23G003-00
NCL 426094000
CC 17-11 (Food and Feed Chemistry)
- IT **Bakery products**
(biscuits, laminated; propylene glycol alginate for **dough** product texture improvement.)
- IT **Bakery products**
(biscuits; propylene glycol alginate for **dough** product texture improvement.)
- IT Cooking
(extrusion; propylene glycol alginate for **dough** product texture improvement.)

- IT Frozen foods
(frozen **dough**; propylene glycol alginate for **dough** product texture improvement.)
- IT **Dough**
(frozen; propylene glycol alginate for **dough** product texture improvement.)
- IT **Bakery products**
Bread
Dough
Emulsifying agents
Food functional properties
Food texture
Gums and Mucilages
Leavening agents
(propylene glycol alginate for **dough** product texture improvement.)
- IT **Bakery products**
(rolls; propylene glycol alginate for **dough** product texture improvement.)
- IT 9005-25-8, Starch, biological studies
(pregelatinized; propylene glycol alginate for **dough** product texture improvement.)
- IT 9005-37-2, Propylene glycol alginate 9037-22-3, Amylopectin
(propylene glycol alginate for **dough** product texture improvement.)
- L28 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:596270 Document No. 139:132718 Swollen foods containing okara.
Nakajima, Makoto; Nakajima, Kosaku; Nakai, Yasumatsu; Takatsuji, Masao; Yamamoto, Katsuyuki (Tajimaya Foods Co., Ltd., Japan; Matsutani Kagaku Kogyo Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 2003219827 A2 20030805, 8 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 2002-21584 20020130.
- AB The swollen foods are obtained by microwave heating of dough contg. okara, flours such as wheat flour, gelatinized crosslinked starch (cold-water swelling degree 4-35), and swelling agents at the wt. ratios of okara to total amts. of the flours and gelatinized crosslinked starch of 3/1 to 1/5. The foods (e.g., bread, pizza, and cookies) have high dietary fiber content and good texture and flavor.
- IC ICM A23L001-20
ICS A21D013-00; A23L001-00; A23L001-48
- CC 17-11 (Food and Feed Chemistry)
- IT **Leavening agents**
(baking powder; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT Cooking

- (baking, microwave; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT **Bakery products**
(cookies; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT **Bakery products**
(doughnuts; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT Cooking
(microwave; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT Soybean (Glycine max)
(milk; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT Soybean (Glycine max)
(okara; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT **Bakery products**
(pizza; swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT Bakers' yeast
Bakery products
 Bread
 Dietary fiber
Dough
 Health food
 Soybean curd
 Swelling agents
 Wheat flour
 (swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT 9050-36-6, Maltodextrin
(swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT 9067-33-8P, Starch acetate phosphate 11120-02-8P, Starch phosphate
(swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)
- IT 9005-25-8D, Tapioca starch, esters

(swollen foods manufd. by microwave cooking of **dough** contg. okara, flour, gelatinized crosslinked starch, and swelling agents)

L28 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:473009 Document No. 139:52087 Chemical leavener system comprising acidulant precursors and an alkaline carbonate. Huang, Victor T.; Panda, Fern A. (The Pillsbury Company, USA). U.S. Pat. Appl. Publ. US 2003113424 A1 20030619, 10 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-956323 20010919.

AB Chem. leavener systems are provided for use in flour-contg. foods that contain an enzyme for hydrolyzing an acidulant precursor. The chem. leavener system comprises an acidulant precursor and an alk. carbonate, wherein the majority of carbon dioxide gas provided by the chem. leavener system when used in a hydrolyzing enzyme-contg. foodstuff is created by reaction of an alk. carbonate with an acid that is the hydrolysis product of the acidulant precursor. Methods of use of the acidulant precursor and the chem. leavener system, and products made by these methods are also provided.

IC ICM A21D002-00

NCL 426551000

CC 17-11 (Food and Feed Chemistry)

IT Antimicrobial agents

Bakery products

Bread

Dough

Leavening agents

Sweetening agents

Wheat flour

(chem. leavener system comprising acidulant precursors and an alk. carbonate)

IT Frozen foods

(frozen **dough**; chem. leavener system comprising acidulant precursors and an alk. carbonate)

IT **Dough**

(frozen; chem. leavener system comprising acidulant precursors and an alk. carbonate)

L28 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:466645 Document No. 139:35646 Microwavable yeast-leavened bakery product containing a gelling agent-gum-enzyme dough additive. Jahnke, Michael (Brecht & Richter Company, USA). U.S. US 6579546 B1 20030617, 19 pp. (English). CODEN: USXXAM. APPLICATION: US 2001-753485 20010103.

AB A microwave baking dough additive has a gelling component, a gum component and an enzyme component. A method is disclosed controlling moisture migration or starch recrystn. in yeast-leavened bakery products that are baked by microwave energy. A frozen bakery

dough is transformed into a fresh-baked, microwavable, yeast-leavened bakery product.

IC ICM A21D002-00

NCL 426019000; 426020000; 426237000; 426243000; 426549000; 426065000

CC 17-11 (Food and Feed Chemistry)

IT Dough

(additives; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Dough

(cinnamon roll; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Frozen foods

(frozen **dough**, cinnamon roll; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Frozen foods

(frozen **dough**, pizza; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Frozen foods

(frozen **dough**; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Dough

(frozen, cinnamon roll; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Dough

(frozen, pizza; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Dough

(frozen; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Microwave

(irradn.; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Bakers' yeast

Bakery products

Gelation agents

Gums and Mucilages

Leavening agents

(microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT Enzymes, biological studies

(microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT **Bakery products**

Dough

(pizza; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT **Bakery products**

(rolls, cinnamon; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT **Proteins**

(soybean; microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

IT 62-54-4, Calcium acetate 299-28-5, Calcium gluconate 471-34-1, Calcium carbonate, biological studies 814-80-2, Calcium lactate 7693-13-2, Calcium citrate 7757-93-9, Dicalcium phosphate 7758-23-8, Monocalcium phosphate 7758-87-4, Tricalcium phosphate 7778-18-9, Calcium sulfate 9000-90-2, α -Amylase 9000-91-3, β -Amylase 9001-22-3, β -Glucosidase 9001-42-7, α -Glucosidase 9001-62-1, Lipase 9001-92-7, Protease 9005-32-7D, Alginic acid, esters 9005-34-9, Ammonium alginate 9005-35-0, Calcium alginate 9005-36-1, Potassium alginate 9005-38-3, Sodium alginate 9012-54-8, Cellulase 9025-56-3, Hemicellulase 9025-70-1, Dextranase 9031-94-1, Aminopeptidase 9031-98-5, Carboxypeptidase 9032-08-0, Amyloglucosidase 9035-73-8, Oxidase 9067-73-6, Isoamylase 9068-42-2, Pentosanase 9075-68-7, Pullulanase 10103-46-5, Calcium phosphate 12698-40-7, Sodium calcium alginate 27214-00-2, Calcium glycerol phosphate 37259-58-8, Serine protease 37278-89-0, Xylanase 37353-41-6, Sulfhydryl protease 78615-48-2, Propyl alginate 102087-03-6, Octyl alginate 118689-42-2, Ethyl alginate 216252-91-4, Maillose 250657-72-8, Hexyl alginate 540466-57-7, Butyl alginate 540466-58-8, Pentyl alginate 540466-59-9, Heptyl alginate 540466-60-2, Nonyl alginate 540466-61-3, Decyl alginate 540466-62-4, Propyl glycerol alginate (microwavable yeast-leavened bakery product contg. a gelling agent-gum-enzyme **dough** additive)

L28 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:454479 Document No. 139:21369 Liquid yeast compositions containing sodium chloride. Koster, Frans; De Vreede, Unno Adrianus (DSM N.V., Neth.). PCT Int. Appl. WO 2003048342 A2 20030612, 22 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-EP13480 20021128. PRIORITY: EP 2001-204783 20011205.

AB A liq. compn. suitable for prepg. dough and bakery products

comprises 24-45% yeast (based on yeast dry matter content) and is characterized in that it contains >0.75% salt and is biol. stable when maintained at <10°. Thus, a liq. *Saccharomyces cerevisiae* prepn. contg. 2.7% sodium chloride (yeast dry matter content 27%) may be obtained from compressed yeast starting material.

IC ICM C12N001-18

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**

Centrifugation

Dough

Emulsifying agents

Fermentation

Filtration

Gums and Mucilages

Leavening agents

Oxidizing agents

Reducing agents

Saccharomyces cerevisiae

Yeast

(liq. yeast compns. contg. sodium chloride)

L28 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:154929 Document No. 138:169217 Carbon dioxide monitoring during dough leavening. Schuh, William C. (USA). U.S. Pat. Appl. Publ. US 2003039725 A1 20030227, 9 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-935904 20010823.

AB Carbon dioxide prodn. is monitored during dough leavening to improve the efficiency and quality of baking. A yeast dough is placed in an oven for rising and baking. A carbon dioxide sensor is connected to the oven to sense the carbon dioxide in the oven atm. and a monitoring device monitors the signal from the carbon dioxide sensor to provide an output indicative of the end of the rising stage and may automatically control the oven to begin baking.

IC ICM G01N033-02

NCL 426231000

CC 17-11 (Food and Feed Chemistry)

IT Optical detectors

(IR; carbon dioxide monitoring during **dough** leavening)

IT Cooking

(baking; carbon dioxide monitoring during **dough** leavening)

IT **Bakery products**

Bread

Control apparatus

Dough

Gas sensors

Hygrometers

Leavening agents

Ovens

Thermistors

Thermocouples

Thermometers

(carbon dioxide monitoring during **dough** leavening)

IT 124-38-9, Carbon dioxide, analysis

(carbon dioxide monitoring during **dough** leavening)

L28 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:793333 Document No. 137:294010 Self-rising nonyeast

dough-containing food product, especially microwaveable frozen

pizza. Brodie, John; Shaheed, Amr (Rhodia, Inc., USA). PCT Int.

Appl. WO 2002080684 A2 20021017, 14 pp. DESIGNATED STATES: W: AE,

AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR,

CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,

ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,

MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG,

SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,

AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI,

CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE,

NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.

APPLICATION: WO 2002-US2463 20020128. PRIORITY: US 2001-824335

20010402.

AB A self-rising dough-contg. food product in which a non-yeast contg. leavening system is combined with an uncooked dough in the presence of a moisture retention agent to provide a frozen food product that may be readily cooked in a microwave oven.

IC ICM A21D006-00

ICS A21D002-18; A21D008-02; A21D002-14

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**(pizza, frozen; self-rising nonyeast **dough**-contg. food product, esp. microwaveable frozen pizza)

IT Frozen foods

(pizza; self-rising nonyeast **dough**-contg. food product, esp. microwaveable frozen pizza)IT **Dough**

Frozen foods

Gums and Mucilages

Leavening agents(self-rising nonyeast **dough**-contg. food product, esp. microwaveable frozen pizza)

IT 11138-66-2, Xanthan gum

(Rhodigel Ultra; self-rising nonyeast **dough**-contg. food product, esp. microwaveable frozen pizza)

IT 71-52-3, Bicarbonate, biological studies 144-55-8, Sodium bicarbonate, biological studies 7558-80-7 55671-94-8, Levair

(self-rising nonyeast **dough**-contg. food product, esp.
microwaveable frozen pizza)

L28 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:637458 Document No. 137:154240 Microwaveable bread products.

Hoseney, R. Carl; Miller, Rebecca Ann; Bassi, Sukh; Maningat, Clodualdo C. (Midwest Grain Products, Inc., USA). PCT Int. Appl. WO 2002063965 A1 20020822, 13 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US48625 20011217. PRIORITY: US 2001-782698 20010213.

AB Bread and similar wheat flour-based products are provided which exhibit reduced toughness when subjected to microwave heating. The products are prepd. from wheat flour-based, leavened doughs which have adjusted gliadin:glutenin ratios of about 1.1-2.3, such ratio adjustment is preferably accomplished by the addn. of a gliadin-rich prepn. into the starting doughs, typically at levels of from about 1-6%.

IC ICM A21D002-00

ICS A21D008-00

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**

(buns, hoagie; microwaveable bread products)

IT Bread

Dough

Flavor

Food functional properties

Leavening agents

Odor and Odorous substances

Wheat flour

(microwaveable bread products)

IT **Bakery products**

(wheat flour-based; microwaveable bread products)

L28 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:206189 Document No. 137:154093 Effects of amount and solubility of leavening compounds on flour tortilla characteristics. Adams, Janet L.; Waniska, Ralph D. (Frito-Lay, Plano, TX, 75024, USA). Cereal Foods World, 47(2), 60,62-64 (English) 2002. CODEN: CFWODA. ISSN: 0146-6283. Publisher: American Association of Cereal Chemists.

AB Leavening acids with varying rates of reaction were evaluated in

combinations with fine and fat-encapsulated NaHCO_3 (NBC) in wheat flour tortillas. Fine particle-size and fat-encapsulated NBC were reacted with citric acid and sodium aluminum phosphate to yield doughs with varying pH profiles. Several less sol. leavening acids were also evaluated with fine NBC to det. the range of product characteristics. Tortilla wt. and moisture were not affected by leavening compds. or by the amt. of the same leavening ingredients. Tortillas produced with medium-to-slow dissolving acids were thicker and more opaque. The more sol. acids reacted with NBC in the dough, but the generated gas was not efficiently retained and the tortillas had decreased height, diam., opacity, and vol. Selected leavening systems produced unique tortilla attributes, while the amt. of leavening (other than the optimal amt.) did not improve tortilla attributes.

CC 17-6 (Food and Feed Chemistry)

IT **Dough**

Food elasticity

Food functional properties

Leavening agents

pH

(effects of amt. and soly. of leavening compds. on flour tortilla characteristics)

IT **Bakery products**

(tortillas; effects of amt. and soly. of leavening compds. on flour tortilla characteristics)

L28 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:903712 Document No. 136:5139 Milk protein-containing low-calorie dough for bread-type products. Allouche, Reginald (Fr.). PCT Int. Appl. WO 2001093686 A1 20011213, 17 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (French). CODEN: PIXXD2. APPLICATION: WO 2001-FR1744 20010606. PRIORITY: FR 2000-7468 20000607.

AB A high-protein and low-calorie food prepn. is in the form of a dough adapted to be shaped (e.g., into rolls, balls, patties, or baguettes) for making products imitating or resembling traditional bread-type products. The commercialized product includes (wt. %): a total protein content (measured in $\text{N} \times 6.25$) of 5-25% (preferably 6-23%, and more preferably 7-22%); carbohydrate content of 10-27% (preferably 10-26%, and more preferably 11-25%); a lipid content of 0.01-2% (preferably 0.05-2%, and more preferably 0.09-1.75%); and a water content of 45-70%. Bakery products are obtained by using the

food prepn. Thus, a dough for a bread-like product contains wheat flour 29.77, milk protein 16.08, salt 0.78, yeast 0.62, and water 52.75%.

IC ICM A21D002-26

ICS A21D008-02; A21D010-02; A21D013-06

CC 17-11 (Food and Feed Chemistry)

IT Bakers' yeast

Bakery products

Bread

Dietary energy

Dough

Leavening agents

(milk protein-contg. low-calorie **dough** for bread-type products)

IT Carbohydrates, biological studies

Lipids, biological studies

Proteins

(milk protein-contg. low-calorie **dough** for bread-type products)

IT Proteins

(milk; milk protein-contg. low-calorie **dough** for bread-type products)

L28 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:338286 Document No. 134:325539 Leavening agents for freezer-to-oven dough products. Hansen, Laura M.; Anderson, Brian Robert; Lorence, Matthew W.; Reinke, Jeffrey D. (The Pillsbury Company, USA). PCT Int. Appl. WO 2001032023 A1 20010510, 43 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US29977 20001031. PRIORITY: US 1999-431639 19991101.

AB Freezer-to-oven dough products include a chem. leavening system comprising chem. leavening agents having different temp. ranges within which they are active as chem. leaveners. Such a chem. leavening system provides for the staged rising, i.e., rising that occurs over a wide temp. range and thus during a substantial portion of the cooking cycle. By providing frozen dough products with such a leavening system, the need for a preproofing step prior to freezing, a thawing step or an intervening proofing step prior to cooking is avoided; the dough product is capable of substantial expansion upon cooking, thereby producing a cooked dough product

with excellent visual and organoleptic properties. Thus, a dough formulation for cinnamon rolls may include 0.55% sodium acid pyrophosphate as a fast-acting leavening agent, 0.40% sodium aluminum phosphate as a slow-acting leavening agent, and 1.86% glycerol as a freezing pt. depressant.

- IC ICM A21D006-00
- ICS A21D002-14; A21D010-02
- CC 17-11 (Food and Feed Chemistry)
- IT Cooking
 - (baking; **leavening agents** for freezer-to-oven dough products)
- IT **Leavening agents**
 - (for freezer-to-oven dough products)
- IT Frozen foods
 - (frozen dough; **leavening agents** for freezer-to-oven dough products)
- IT **Dough**
 - (frozen; **leavening agents** for freezer-to-oven dough products)
- IT **Bakery products**
 - (rolls, cinnamon; **leavening agents** for freezer-to-oven dough products)
- IT 56-81-5, Glycerol, biological studies 7758-16-9 7785-88-8, Sodium aluminum phosphate
 - (**leavening agents** for freezer-to-oven dough products)

L28 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:253955 Document No. 135:272151 Study on optimum pH value in addition of alkali in Laojiao dough. Mao, Yuyang; Zhu, Zaiqin; Ji, Youhua; Zhang, Wentao; Xu, Chuanjun (Traveling + Cooking College, Yangzhou University, Yangzhou, 225001, Peop. Rep. China). Shipin Kexue (Beijing), 22(3), 88-90 (Chinese) 2001. CODEN: SPKHD5. ISSN: 1002-6630. Publisher: Zhongguo Shipin Zazhishe.

- AB Food made with dough leavened with Laojiao (naturally fermented dough) tastes good and have good flavor. Org. acid was produced during leaven fermn. and this acid should be neutralized by adding alkali. How much alkali should be added to achieve the optimum flavor and taste has always been one of the difficult points in refreshment prodn. technol. This study proved that the refreshments made of naturally fermented dough Laojiao right after the addn. of alkali and with the pH value between 6.15 -6.20 could achieve good flavor. And the refreshments made of the Laojiao after the addn. of alkali to be kept about 25 min in which the pH value could reach 6.12--6.15, could gain even better flavor.
- CC 17-11 (Food and Feed Chemistry)
- IT **Leavening agents**
 - (Laojiao; optimum pH value in addn. of alkali in Laojiao

- dough)
- IT **Bakery products**
Bread
Dough
(optimum pH value in addn. of alkali in Laojiao dough)
- IT 6132-02-1, Sodium carbonate, decahydrate 12408-02-5, Hydrogen ion, biological studies
(optimum pH value in addn. of alkali in Laojiao dough)
- L28 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1999:722691 Document No. 131:310000 Pyrophosphate-containing leavening agents produced from monocalcium phosphate. Chung, Frank H. Y.; Edging, Thomas E. (Rhodia Inc., USA). Eur. Pat. Appl. EP 954974 A2 19991110, 13 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-303562 19990506. PRIORITY: US 1998-74788 19980508.
- AB A leavening agent is produced by heating anhyd. monocalcium phosphate for a suitable time and at a suitable temp. so that the resulting compn. contains 25-72% by wt. of P2O7. Thus, anhyd. monocalcium phosphate is fed to a rotary dryer which is heated until the temp. of the added material is about 230-265° for 3 h; 50.0-63.3% of the product is pyrophosphate.
- IC ICM A21D002-02
CC 17-11 (Food and Feed Chemistry)
- IT **Bakery products**
(cakes; pyrophosphate-contg. leavening agents produced from monocalcium phosphate)
- IT **Bakery products**
(cookies; pyrophosphate-contg. leavening agents produced from monocalcium phosphate)
- IT **Bakery products**
(doughnuts; pyrophosphate-contg. leavening agents produced from monocalcium phosphate)
- IT Frozen foods
Frozen foods
(frozen dough; pyrophosphate-contg. leavening agents produced from monocalcium phosphate)
- IT Dough
Dough
(frozen; pyrophosphate-contg. leavening agents produced from monocalcium phosphate)
- IT **Bakery products**
(muffins; pyrophosphate-contg. leavening agents produced from monocalcium phosphate)
- IT **Bakery products**
(pancakes; pyrophosphate-contg. leavening agents produced from monocalcium phosphate)

- IT **Bakery products**
(pastries; pyrophosphate-contg. **leavening agents** produced from monocalcium phosphate)
- IT **Bakery products**
Bread
Dough
Leavening agents
(pyrophosphate-contg. **leavening agents** produced from monocalcium phosphate)
- IT 77-92-9, biological studies 87-69-4, biological studies 90-80-2, Glucono- δ -lactone 110-17-8, 2-Butenedioic acid (2E)-, biological studies 124-04-9, Hexanedioic acid, biological studies 868-14-4, Monopotassium tartrate, biological studies 7558-80-7, Monosodium phosphate 7722-76-1, Monoammonium phosphate 7758-16-9 7758-23-8, Monocalcium phosphate 7778-77-0, Monopotassium phosphate 7784-25-0, Ammonium alum 7785-88-8, Sodium aluminum phosphate 7789-77-7, Dicalcium phosphate dihydrate 10043-01-3, Aluminum sulfate 10043-67-1, Potassium alum 10102-71-3, Sodium aluminum sulfate 13092-66-5 14000-31-8, Pyrophosphate 15007-61-1, Potassium aluminum sulfate
(pyrophosphate-contg. **leavening agents** produced from monocalcium phosphate)
- L28 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1999:141932 Document No. 130:209103 Cakes having multiple tubular spaces and their manufacture. Takazawa, Minoru (Nisshin-DCA Shokuhin K. K., Japan). Jpn. Kokai Tokkyo Koho JP 11056216 A2 19990302 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-219566 19970814.
- AB Cakes having multiple tubular spaces inside in the longitudinal direction to show ice column-like appearance are manufd. by prepg. dough with viscosity 80-400 cps contg. saccharides 100, starch 10-100, egg 10-80, and baking powder 0.3-2 wt. parts and baking the dough. The cakes have glutinous texture and show improved shelf-life. Dough contg. powder sugar 100, tapioca starch 20, baking powder [NaHCO₃ 60%, KAl(SO₄)₂ 40%] 0.5, raw egg 65, and H₂O 35% (viscosity 240 cos) was stored at 3° for 24 h and then baked using muffin pans at 180° for 20 min to give cakes having ice column-like appearance.
- IC ICM A21D002-18
ICS A21D002-02; A21D002-34; A21D013-00
- CC 17-11 (Food and Feed Chemistry)
- IT **Leavening agents**
(baking powder; manuf. of cakes having longitudinally-formed multiple tubular spaces inside from viscosity-controlled dough)
- IT **Bakery products**
(cakes; manuf. of cakes having longitudinally-formed multiple

- tubular spaces inside from viscosity-controlled **dough**)
- IT **Dough**
Egg, poultry
(manuf. of cakes having longitudinally-formed multiple tubular spaces inside from viscosity-controlled **dough**)
- IT Carbohydrates, biological studies
(manuf. of cakes having longitudinally-formed multiple tubular spaces inside from viscosity-controlled **dough**)
- IT 144-55-8, Sodium hydrogen carbonate, biological studies 9005-25-8, Starch, biological studies 10043-67-1, Burnt alum
(manuf. of cakes having longitudinally-formed multiple tubular spaces inside from viscosity-controlled **dough**)
- L28 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1999:141931 Document No. 130:209102 Frozen dough suitable for cooking without thawing and its manufacture. Furuhashi, Toshiaki (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11056215 A2 19990302 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-217657 19970812.
- AB The dough, which can be baked by a oven or fried without thawing to give products having soft texture, mainly comprises cereal flour, H2O, and baking powder and shows air-isolated multilayer structure. The dough is manufd. by sprinkling baking powder on dough mainly comprising cereal flour, H2O, and baking powder and laminating the dough with another dough. Multilayer scone dough was prepd. from flour 100, margarine 30, NaCl 1.0, sucrose 15, baking powder 4, whole egg 20, milk 20, and H2O 15 parts in such a way as to make a pie sheet, frozen, and baked in a oven at 200° for 20 min to give a scone.
- IC ICM A21D002-02
ICS A21D006-00; A21D010-02
- CC 17-11 (Food and Feed Chemistry)
- IT **Leavening agents**
(baking powder; manuf. of frozen **dough** having air-insulated multilayer formed by baking powder suitable for cooking without thawing)
- IT **Bakery products**
(doughnuts; manuf. of frozen **dough** having air-insulated multilayer formed by baking powder suitable for cooking without thawing)
- IT Frozen foods
Frozen foods
(frozen **dough**; manuf. of frozen **dough** having air-insulated multilayer formed by baking powder suitable for cooking without thawing)
- IT **Dough**
Dough
(frozen; manuf. of frozen **dough** having air-insulated

multilayer formed by baking powder suitable for cooking without thawing)

IT **Bakery products**

Wheat flour

(manuf. of frozen **dough** having air-insulated multilayer formed by baking powder suitable for cooking without thawing)

L28 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

1998:219682 Document No. 128:256708 Method of preparing dough.

Laughlin, Daniel L.; Demars, Jimmy A. (Pillsbury Co., USA). PCT

Int. Appl. WO 9814065 A1 19980409, 31 pp. DESIGNATED STATES: W:

AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1997-US15959 19970909. PRIORITY: US 1996-723863 19960930.

AB The invention is directed to a method of prepg. a dough compn. According to the method, a first batter comprising water and a leavening acid is formed. A second batter comprising water and a leavening base is also formed. After each batter is formed sep., the first and second batters are combined to formulate a dough wherein said dough proofs rapidly and provides a higher sp. vol. upon baking. The invention is also directed to a dough compn. formulated from two sep. batters, a first batter comprising water and a leavening acid, and a second batter comprising water and a leavening base. When the two batters are combined, with flour, the resulting dough comprises from about 30 wt.% to about 60 wt.% flour; from about 20 wt.% to about 40 wt.% water; from about 0.1 wt.% to about 2.0 wt.% leavening acid; from about 0.1 wt.% to about 2.0 wt.% leavening acid. According to the invention, the dough proofs rapidly and, once baked, provides a sp. vol. ranging from about 2 cc/g 5 to cc/g.

IC ICM A21D008-02

ICS A21D010-04; A21D002-02

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**

(biscuits; method of prepg. **dough** with two batters)

IT Bread

Dough

Food packaging

Leavening agents

Specific volume

(method of prepg. **dough** with two batters)

IT Diglycerides

Diglycerides

Monoglycerides

Monoglycerides

(mixed monoglycerides and diglycerides, esters with diacetyltartaric acid; method of prepg. **dough** with two batters)

IT 90-80-2, Glucono- δ -lactone 123-77-3, Azodicarbonamide 144-55-8, Sodium bicarbonate, biological studies 298-14-6, Potassium bicarbonate 506-87-6, Ammonium carbonate 868-14-4, Potassium hydrogen tartrate, biological studies 1066-33-7, Ammonium bicarbonate 7757-93-9, Dicalcium phosphate 7758-16-9 7758-23-8, Monocalcium phosphate 7785-88-8, Sodium aluminum phosphate 7789-77-7, Dicalcium phosphate dihydrate 10031-30-8, Monocalcium phosphate monohydrate 10102-71-3, Sodium aluminum sulfate 24634-61-5, Potassium sorbate 51591-38-9D, Diacetyl tartaric acid, glyceride ester derivs (method of prepg. **dough** with two batters)

L28 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

1998:219681 Document No. 128:256707 Method of preparing dough.

Laughlin, Daniel L.; Demars, Jimmy A.; Vargas, Gregory C. (Pillsbury Co., USA). PCT Int. Appl. WO 9814064 A1 19980409, 29 pp.

DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2.

APPLICATION: WO 1997-US15865 19970909. PRIORITY: US 1996-723919 19960930.

AB The invention is directed to a method of prepg. a dough compn. According to the method, a batter comprising water, a leavening agent, and flour is formed. After the batter is formed, a complementary leavening agent, addnl. flour and other minor ingredients are added to the batter and mixed to form a dough wherein the leavening agents are distributed uniformly through the dough and the dough results in a higher sp. vol. upon baking. The invention is also directed to a dough compn. formulated from a batter, wherein the batter comprises water, a leavening agent and flour. After the batter is formed, a complementary leavening agent, addnl. flour, and any minor ingredients are added to the batter and mixed to form a dough. Alternatively, the complementary leavening agent can be added in an unreactive form to the batter as long as it does not react with the other leavening agent until the dough is formed. The dough comprises from about 30 wt.% to about 60 wt.% flour; from about 20 wt.% to about 40 wt.% water; from about 0.1 wt.% to about 2.0 wt.% leavening acid; and from about 0.1 wt.% to about 2.0 wt.% leavening base. According to the invention, the

dough proofs uniformly and, once baked, provides a sp. vol. ranging from about 2 cc/gm to about 6 cc/gm.

IC ICM A21D008-02

ICS A21D010-00; A21D002-02

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**

(biscuits; method of prepg. **dough** with high sp. vol.)

IT Bread

Cooking

Dough

Flours and Meals

Leavening agents

Specific volume

(method of prepg. **dough** with high sp. vol.)

IT 90-80-2, Glucono 8-lactone 144-55-8, Sodium bicarbonate, biological studies 298-14-6, Potassium bicarbonate 506-87-6, Ammonium carbonate 868-14-4, Potassium hydrogen tartrate, biological studies 1066-33-7, Ammonium bicarbonate 7757-93-9, Dicalcium phosphate 7758-16-9 7758-23-8, Monocalcium phosphate 7785-88-8, Sodium aluminum phosphate 7789-77-7, Dicalcium phosphate dihydrate 10031-30-8, Monocalcium phosphate monohydrate 10102-71-3, Sodium aluminum sulfate

(method of prepg. **dough** with high sp. vol.)

L28 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

1997:734616 Document No. 127:318380 Use of calcium chloride and magnesium chloride as leavening acids for batter and dough compositions. Wu, Rei-Young Amos (Quaker Oats Co., USA). Can. Pat. Appl. CA 2191836 AA 19970627, 37 pp. (English). CODEN: CPXXEB. APPLICATION: CA 1996-2191836 19961202. PRIORITY: US 1995-579058 19951226.

AB Disclosed is the use of calcium chloride, magnesium chloride, their hydrates, and mixts. thereof, as chem. leavening acids in the prepn. of baked goods. Such chem. leavening compn. is used in both batter compns. and dough compns.

IC ICM A21D002-02

ICS A21D010-00; A21D008-02

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**

(biscuits; use of calcium chloride and magnesium chloride as leavening acids for batter and **dough** compns.)

IT **Bakery products**

(pancakes, batter; use of calcium chloride and magnesium chloride as leavening acids for batter and **dough** compns.)

IT **Bakery products**

(pizza crust **dough**; use of calcium chloride and magnesium chloride as leavening acids for batter and **dough** compns.)

- IT **Dough**
 Leavening agents
 (use of calcium chloride and magnesium chloride as leavening acids for batter and **dough** compns.)
- IT **Bakery products**
 (waffle batter; use of calcium chloride and magnesium chloride as leavening acids for batter and **dough** compns.)
- IT 144-55-8, Sodium bicarbonate, biological studies 298-14-6,
Potassium bicarbonate 1066-33-7, Ammonium bicarbonate 7786-30-3,
Magnesium chloride, biological studies 10043-52-4, Calcium
chloride, biological studies 17638-61-8 22691-02-7, Calcium
chloride hydrate
 (use of calcium chloride and magnesium chloride as leavening acids for batter and **dough** compns.)
- IT 124-38-9, Carbon dioxide, formation (nonpreparative)
 (use of calcium chloride and magnesium chloride as leavening acids for batter and **dough** compns.)
- L28 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1997:576651 Document No. 127:204801 Novel leavening system. Heidolph, Barbara B.; Highfill, Louis A. (Monsanto Co., USA; Heidolph, Barbara B.; Highfill, Louis A.). PCT Int. Appl. WO 9730593 A2 19970828, 19 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1997-US1493 19970205. PRIORITY: US 1996-603301 19960220.
- AB There is disclosed a novel leavening compn. comprising hemipotassium phosphate in combination with a carbonate factor. The hemipotassium phosphate is prepd. by soln. crystn. with removal of water.
- IC ICM A21D002-02
ICS A21D006-00; A21D010-00; C01B025-26
- CC 17-11 (Food and Feed Chemistry)
- IT **Bakery products**
 (biscuits; leavening system for fresh, refrigerated or frozen **dough** products)
- IT **Bakery products**
 (cakes; leavening system for fresh, refrigerated or frozen **dough** products)
- IT **Bakery products**
 (cookies; leavening system for fresh, refrigerated or frozen **dough** products)
- IT **Bakery products**
 (crackers; leavening system for fresh, refrigerated or frozen

- dough products)
- IT Frozen foods
Frozen foods
(frozen **dough**; leavening system for fresh, refrigerated
or frozen **dough** products)
- IT **Dough**
Dough
(frozen; leavening system for fresh, refrigerated or frozen
dough products)
- IT Food
(hush puppies; leavening system for fresh, refrigerated or frozen
dough products)
- IT **Bakery products**
Dough
Leavening agents
(leavening system for fresh, refrigerated or frozen **dough**
products)
- IT **Bakery products**
(muffins; leavening system for fresh, refrigerated or frozen
dough products)
- IT **Bakery products**
(pancakes; leavening system for fresh, refrigerated or frozen
dough products)
- IT **Bakery products**
(pizza, **dough**; leavening system for fresh, refrigerated
or frozen **dough** products)
- IT 77-92-9, Citric acid, biological studies 144-55-8, Sodium
bicarbonate, biological studies 298-14-6, Potassium bicarbonate
471-34-1, Calcium carbonate, biological studies 1066-33-7,
Ammonium bicarbonate 7778-53-2, Potassium orthophosphate
14000-31-8, Pyrophosphate 16068-46-5
(leavening system for fresh, refrigerated or frozen **dough**
products)
- L28 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1997:77189 Document No. 126:88594 Heat-settable, frozen bakery dough
systems. Van Der Beek, Marius Molco N. V.; Sanders, Johannes
Cornelis; Hemelaar, Maria Johanna A. T. (Unilever N.V., Neth.).
Eur. Pat. Appl. EP 749690 A1 19961227, 7 pp. DESIGNATED STATES: R:
AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE.
(English). CODEN: EPXXDW. APPLICATION: EP 1995-201687 19950622.
- AB The invention concerns a ready-to-bake, heat settable frozen bakery
dough system comprising 80-99% natural flour and 20-1% artificial
flour. The artificial flour consists of 30-70% protein and 70-30%
modified starch. The dough system has a frozen aq. layer.
- IC ICM A21D006-00
ICS A21D013-08; A21D013-00; A21D002-18; A21D002-26
- CC 17-11 (Food and Feed Chemistry)

- IT **Bakery products**
(croissants; heat-settable, frozen bakery **dough** systems)
 - IT Proteins, general, biological studies
(dietary; heat-settable, frozen bakery **dough** systems)
 - IT Bread
(**dough**; heat-settable, frozen bakery **dough** systems)
 - IT Frozen foods
Frozen foods
(frozen **dough**; heat-settable, frozen bakery **dough** systems)
 - IT **Dough**
Dough
(frozen; heat-settable, frozen bakery **dough** systems)
 - IT Flours and Meals
Food gelling
Leavening agents
(heat-settable, frozen bakery **dough** systems)
 - IT Gelatins, biological studies
(heat-settable, frozen bakery **dough** systems)
 - IT **Bakery products**
(rolls; heat-settable, frozen bakery **dough** systems)
 - IT 9000-30-0, Guar gum 9004-32-4 9005-25-8D, Starch, cross-linked, biological studies 9005-32-7, Alginic acid 11138-66-2, Xanthan gum
(heat-settable, frozen bakery **dough** systems)
- L28 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:377339 Document No. 125:32406 Chemical leavening agents containing monocalcium phosphate. Chung, Frank H. Y. (Rhone-Poulenc Inc., USA). Eur. Pat. Appl. EP 713648 A2 19960529, 11 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE. (French). CODEN: EPXXDW. APPLICATION: EP 1995-402606 19951121. PRIORITY: US 1994-344322 19941122.
- AB A chem. leavening agent contains monocalcium phosphate with a neutralization index of about 44-63, where the neutralization index represents the wt. of sodium bicarbonate needed to neutralize 100 parts by wt. of the monocalcium phosphate. Thus, yellow cake is baked from a mixt. contg. 236 parts flour, 280.84 parts sugar, 53.57 parts fat, 18.17 parts skim milk powder, 22.89 parts powd. egg yolk, 9.20 parts egg white powder, 6.37 parts salt, 9.0-13 parts leavening agent, 5.66 parts sodium bicarbonate, 2.60 parts pregelatinized starch, and 5 parts emulsifier.
- IC ICM A21D002-02
CC 17-11 (Food and Feed Chemistry)
IT **Bakery products**
Bread

- Dough
Leavening agents
(chem. leavening agents contg. monocalcium phosphate)
- IT Bakery products
(cakes, chem. leavening agents contg. monocalcium phosphate)
- IT Bakery products
(cookies, chem. leavening agents contg. monocalcium phosphate)
- IT Frozen foods
(dough, chem. leavening agents contg. monocalcium phosphate)
- IT Dough
(frozen, chem. leavening agents contg. monocalcium phosphate)
- IT Bakery products
(muffins, chem. leavening agents contg. monocalcium phosphate)
- IT 7758-23-8, Monocalcium phosphate
(chem. leavening agents contg. monocalcium phosphate)
- L28 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:277215 Document No. 125:8757 Designing chemical leavening systems. Heidolph, B. B. (Food Phosphates Unit Monsanto Company, NutraSweet Kelco Company, St. Louis, MO, USA). Cereal Foods World, 41(3), 118-22, 124-6 (English) 1996. CODEN: CFWODA. ISSN: 0146-6283. Publisher: American Association of Cereal Chemists.
- AB A review with 10 refs. which may contain some new data. Topics discussed include: mechanisms (yeast fermn., chem. leavening,); tools (neutralizing value, dough rate of reaction, batter expansion, and batter rate of reaction); leavening agents (sodium bicarbonate, potassium bicarbonate, and ammonium bicarbonate); the acidulants; and baking powders.
- CC 17-0 (Food and Feed Chemistry)
- IT Dough
Leavening agents
(designing chem. leavening systems)
- IT Bakery products
(designing chem. leavening systems for bakery products)
- L28 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN
1990:215483 Document No. 112:215483 Calcium dihydrogen diphosphate as leavening acid for slow-reacting leavening systems in ready-to-bake products. Ehret, Werner; Fischer, Jutta; Gitzing, Roland; Koch, Wilhelm; Maurer, Andrea; Taenzler, Richard (Benckiser-Knapsack

G.m.b.H., Fed. Rep. Ger.). Ger. Offen. DE 3820198 A1 19891221, 13 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1988-3820198 19880614.

AB CaH₂P₂O₇ is prepd. by heating Ca(H₂PO₄)₂ and/or Ca(H₂PO₄)₂.H₂O in thin layers in a closed container and is used as a leavening acid, along with NaHCO₃, in freezable, storable ready-to-bake type bakery products. The CaH₂P₂O₇ has preferably <1% impurities and is used at 0.4-1.6% of the dough.

IC ICM A21D002-02

CC 17-11 (Food and Feed Chemistry)

IT **Leavening agents**

(monocalcium pyrophosphate as acid for, with sodium bicarbonate)

IT **Dough**

(monocalcium pyrophosphate as leavening acid for)

IT **Bakery products**

(monocalcium pyrophosphate utilization in)

IT Frozen foods

(**dough**, monocalcium pyrophosphate utilization in)

IT **Dough**

(frozen, monocalcium pyrophosphate utilization in)

IT 14866-19-4

(as leavening acid for **bakery products**)

L28 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

1990:196891 Document No. 112:196891 Starch-based products for microwave cooking or heating. Huang, Victor T.; Hosene, R. Carl; Graf, Ernst; Ghiasi, Katy; Miller, Linda C.; Weber, Jean L.; Gaertner, Karin C.; Matson, Kristin L.; Hunstiger, Antoinette M.; et al. (Pillsbury Co., USA). PCT Int. Appl. WO 9000010 A2 19900111, 59 pp. DESIGNATED STATES: W: AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU; RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1989-US2897 19890629. PRIORITY: US 1988-213075 19880629.

AB A method for producing an edible starch-based bread-like product having a desired degree of toughness comprises addn. of an acidifying agent, a texturizing agent, or a protein interaction inhibitor agent to the dough, and exposing this product to microwave irradiation for sufficient time to produce an edible product of desired texture and contg. ≥15 wt.% H₂O. A biscuit dough was prepd. with usual ingredients plus KIO₃ (oxidant; texturizing agent) 0.03% or K sorbate (protein interaction inhibitor) 0.0125% by wt., sheeted, proofed, stored, and cooked (microwave, 25s on high) to produce biscuits with less toughness than controls.

IC ICM A21D008-06

ICS A21D002-02; A21D002-14; A21D002-24; A21D002-28; A21D002-16

CC 17-6 (Food and Feed Chemistry)

IT Proteins, biological studies

(agents inhibiting interactions of, as texture control additives for microwaved **bakery products**)

IT **Leavening agents**

Oxidizing agents

Surfactants

Yeast

Disulfides

(bakery product texture improvement with, microwave cooking in relation to)

IT **Bakery products**

Bread

(texture control additives for microwave-cooked)

IT **Dough**

(texture control additives for, microwave cooking in relation to)

IT **Bakery products**

(biscuits, texture control additives for microwave-cooked)

IT **Cooking**

(microwave, of **bakery products**, texture control additives for)

L28 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2004 ACS on STN

1986:147496 Document No. 104:147496 Additive for improving the organoleptic and crust qualities of bakery products. Polgardi, Jozsef; Nemeth, Janos; Biro, Jozsef; Iszak, Lajos; Kiss, T. Zoltan (Nyugat-Pest Megyei Sutoipari Vallalat, Hung.). Hung. Teljes HU 36361 A2 19850930 (Hungarian). CODEN: HUXXB. APPLICATION: HU 1982-864 19820323.

AB A dough additive is described, which imparts good organoleptic and crust qualities to bakery products and delays their aging. The additive is made by homogenizing at $<40^{\circ}$ for >5 min a mixt. of $\geq 5\%$ powd. sugar (<1.2 mm particle size; $\leq 2\%$ moisture content), $<0.2\%$ ascorbic acid, $\leq 74\%$ wheat gluten with good swelling capacity, 10-20% leaven substitute (natural or man-made) and $\leq 15\%$ milling product. The powd. sugar and ascorbic acid were added as a premix. The leaven substitute can be made of a mixt. of powd. milk and materials originating from whey or processed wheat flour, or of a mixt. of CaCO_3 , monoglyceride, and monoglyceride diacetyltartrate esters. Buns made with 2% additive-contg. dough showed after 96 h of storage less decrease in elastic dimensional stability and relative elasticity than did buns made without the additive.

IC ICM A21D002-22

CC 17-11 (Food and Feed Chemistry)

IT **Dough**

(additive for, for improved crust qualities and delayed aging of **bakery products**)

IT **Leavening agents**

Malt

Whey

Glutens

(**dough** additive contg., for improving crust qualities and delaying aging of **bakery products**)

IT Milk

(powd., **dough** additive contg., for improving crust qualities and delaying aging of **bakery products**)

IT Corn

(meal, **dough** additive contg., for improving crust qualities and delaying aging of **bakery products**)

IT Glycerides, uses and miscellaneous

(mono-, **dough** additive contg., for improving crust qualities and delaying aging of **bakery products**)

IT 50-81-7, biological studies 57-50-1, biological studies
18261-99-9D, monoglycerate ester

(**dough** additive contg., for improving crust qualities and delaying aging of **bakery products**)

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L29 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:1004587 Document No. 140:4379 Shelf-stable soft flatbread.
Forneck, Keith; Seger, Kent R.; Miklus, Michael; Tangprasertchai,
Uraivan (Kraft Foods Holdings, Inc., USA). U.S. Pat. Appl. Publ. US
2002136814 A1 20020926, 8 pp., Cont.-in-part of U.S. Ser. No.
598,633, abandoned. (English). CODEN: USXXCO. APPLICATION: US
2002-43004 20020108. PRIORITY: US 2000-598633 20000621.

AB A fully baked flatbread product can be stored under ambient conditions for extended periods and retains its desirable soft texture for the shelf life of the product. The fully baked, flatbread products retain their desirable soft texture throughout the entire shelf life of the products (e.g., .apprx.6 mo or longer) if maintained under a modified atm. (i.e., low oxygen and preferably inert gas) at ambient conditions (i.e., about 60-90° F). The fully baked flatbread is prepd. from dough comprising, in baker's percentages, about 100 lb flour, about 25-40 lb water, about 5-20 lb partially hydrogenated vegetable oil, about 5-20 lb glycerin, about 5-20 lb corn syrup solids, about 1-3 lb baking powder, about 1-4 lb dried yeast, about 1-4 lb salt, 0 to .apprx.1 lb potassium sorbate, 0 to .apprx.1 lb calcium propionate, 0 to .apprx.2 lb monoglycerides and diglycerides, 0 to .apprx.2 lb fumaric acid, 0 to .apprx.1 lb cysteine hydrochloride, and 0 to .apprx.10 lb spices and seasonings. Thus, a fully baked flatbread made with a formulation including corn syrup and glycerin (and having a water activity of about 0.8-0.85)

retains a soft texture when sealed in an inert atm. without the use of anti-fogging agents or preservatives.

IC ICM A21D010-00

NCL 426549000

CC 17-11 (Food and Feed Chemistry)

IT **Leavening agents**

(baking powder; shelf-stable soft flatbread)

IT Bakers' yeast

Bread

Condiments

Dough

Food texture

Spices

Wheat flour

(shelf-stable soft flatbread)

IT **Bakery products**

(tortilla chips; food kit contg. shelf-stable soft flatbread)

L29 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:874801 Document No. 139:337264 Microwave baking additive containing gelling, gum and enzyme components.. Jahnke, Michael (Brechet & Richter Company, USA). U.S. Pat. Appl. Publ. US 2003206994 A1 20031106, 15 pp., Cont.-in-part of U.S. Ser. No. 753,485. (English). CODEN: USXXCO. APPLICATION: US 2003-465833 20030616. PRIORITY: US 2001-753485 20010103.

AB The present invention includes a microwave baking additive that has a gelling component, a gum component and an enzyme component. The present invention also includes a method of controlling moisture migration and starch recrystn. in microwavable bakery products. The present invention further includes a method of microwave baking a frozen bakery product to form a bakery product that is similar in appearance and texture to a bakery product that has been prepd. using a conventional oven.

IC ICM A21D002-00

NCL 426019000

CC 17-11 (Food and Feed Chemistry)

IT **Leavening agents**

(biol. and chem. and phys.; microwave baking additive contg. gelling, gum and enzyme components.)

IT **Bakery products**

(biscuits; microwave baking additive contg. gelling, gum and enzyme components.)

IT **Bakery products**

Dough

Flours and Meals

Food additives

Food gelling

Food packaging

Food preservatives

Freezing

Gums and Mucilages

Wheat flour

(microwave baking additive contg. gelling, gum and enzyme components.)

IT Frozen foods

(microwaveable **bakery products**; microwave baking additive contg. gelling, gum and enzyme components.)

IT **Bakery products**

(muffins; microwave baking additive contg. gelling, gum and enzyme components.)

IT **Bakery products**

(pizza, deep dish; microwave baking additive contg. gelling, gum and enzyme components.)

L29 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:761824 Document No. 139:245085 Oil and fat composition for making foods with uneven surface. Kawase, Hisao (Japan Tobacco, Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2003274854 A2 20030930, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-82709 20020325.

AB Foods with uneven surface such as nans are made with a convection oven from an oil and fat compn. (m.p., 30-52°; size, 3-10 mm) prepd. from hydrogenated oil and baking powder. The oil and fat compn. is also useful for manufg. frozen dough for nans.

IC ICM A23D009-00

ICS A21D002-16

CC 17-11 (Food and Feed Chemistry)

IT **Leavening agents**

(baking powder; oil and fat compn. for making **bakery products** with uneven surface)

IT Frozen foods

(frozen **dough**; oil and fat compn. for making **bakery products** with uneven surface)

IT **Dough**

(frozen; oil and fat compn. for making **bakery products** with uneven surface)

IT Fats and Glyceridic oils, biological studies

(hydrogenated; oil and fat compn. for making **bakery products** with uneven surface)

IT **Bakery products**

(nan; oil and fat compn. for making **bakery products** with uneven surface)

IT Bubbles

Melting point

(oil and fat compn. for making **bakery products** with uneven surface)

IT Fats and Glyceridic oils, biological studies

Oils

(oil and fat compn. for making **bakery products**
with uneven surface)

L29 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:761817 Document No. 139:245083 Frozen dough for making donut.
Yamagata, Mineo; Arimura, Toshiaki; Yagihashi, Hiroyoshi (Ajinomoto
Co., Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2003274843 A2
20030930, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
2002-85322 20020326.

AB The shaped frozen dough contains wheat flour (protein value, 8.5-14
wt.%) as the main ingredient, fat 8-50, sugar 5-30, and baking
powder 0.3-6 wt.%. It has thickness of 5-40 mm. The shaped frozen
dough can be fried directly without the thawing and toasting
process.

IC ICM A21D002-02

ICS A21D010-02; A21D013-08

CC 17-11 (Food and Feed Chemistry)

IT **Leavening agents**

(baking powder; frozen **dough** for making donut by direct
frying without thawing)

IT **Bakery products**

(doughnuts; frozen **dough** for making donut by direct
frying without thawing)

IT Wheat flour

(frozen **dough** for making donut by direct frying without
thawing)

IT Carbohydrates, biological studies

Fats and Glyceridic oils, biological studies

(frozen **dough** for making donut by direct frying without
thawing)

IT Frozen foods

(frozen **dough**; frozen **dough** for making donut
by direct frying without thawing)

IT **Dough**

(frozen; frozen **dough** for making donut by direct frying
without thawing)

IT Cooking

(frying; frozen **dough** for making donut by direct frying
without thawing)

IT 57-50-1, Sucrose, biological studies

(frozen **dough** for making donut by direct frying without
thawing)

L29 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:737166 Document No. 139:245081 Lipid-encapsulated storable yeast
for use in doughs and other food products. Dally, Vernetta L.;
Martin, David E.; Pacifico, Carl J.; Richardson, Paul H. (USA).

U.S. Pat. Appl. Publ. US 2003175382 A1 20030918, 5 pp. (English).
CODEN: USXXCO. APPLICATION: US 2002-99290 20020314.

AB The present invention is an encapsulated yeast composite having a core comprising yeast and a coating which comprises a low m.p. lipid which melts at a temp. not greater than 95° F; the yeast includes *Saccharomyces cerevisiae*. The encapsulated composites are useful in the prodn. of food compns. and food products such as doughs.

IC ICM A21D002-00

NCL 426019000

CC 17-11 (Food and Feed Chemistry)

IT Frozen foods

(frozen **dough**; lipid-encapsulated storable yeast for use in doughs and other food products)

IT **Dough**

(frozen; lipid-encapsulated storable yeast for use in doughs and other food products)

IT **Bakery products**

Bread

Coating process

Dough

Encapsulation

Food additives

Leavening agents

Saccharomyces cerevisiae

Yeast

(lipid-encapsulated storable yeast for use in doughs and other food products)

IT **Bakery products**

(pizza, crust; lipid-encapsulated storable yeast for use in doughs and other food products)

L29 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:523979 Document No. 139:84382 Soybean flour and gluten as wheat flour substitute in bread manufacture.. Stark, Ann M. (Cargill, Incorporated, USA). U.S. US 6589584 B1 20030708, 9 pp. (English).
CODEN: USXXAM. APPLICATION: US 1999-293661 19990416.

AB The present invention includes a food ingredient that comprises soy flour and gluten wherein the ratio of gluten to soy flour in the additive is greater than a natural ratio of gluten to flour in wheat flour. The ingredient is effective for making a food product, e.g. bread, having a structure and height substantially the same as a corresponding soy-free product made with wheat flour.

IC ICM A21D010-04

NCL 426554000; 426555000; 426622000; 426634000

CC 17-11 (Food and Feed Chemistry)

IT **Leavening agents**

(baking powder; soybean flour and gluten as wheat flour

- substitute in bread manuf.)
- IT **Bakery products**
(pancakes; soybean flour and gluten as wheat flour substitute in bread manuf.)
- IT Bakers' yeast
Bread
Dough
Egg, poultry
Pasta
Shortening
(soybean flour and gluten as wheat flour substitute in bread manuf.)
- IT **Bakery products**
(tortillas; soybean flour and gluten as wheat flour substitute in bread manuf.)
- IT **Bakery products**
(wheat flour substitutes; soybean flour and gluten as wheat flour substitute in bread manuf.)

L29 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:202390 Document No. 138:204086 Baking-instigated chemical leavening of doughs. Domingues, David J. (General Mills, Inc., USA). PCT Int. Appl. WO 2003020044 A1 20030313, 41 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US26096 20020815. PRIORITY: US 2001-945204 20010831.

AB Chem. leavening agents are sepd. by a degradable barrier material to control their reaction until baking, so that the leavening agents at least partially leaven the dough during baking. An acidic active ingredient (e.g., sodium aluminum phosphate) is selected to have a relatively low soly. in the dough below baking temp. The barrier material is degraded at or above baking temp. to allow a basic ingredient (e.g., sodium bicarbonate) to contact the acidic component, thus promoting leavening. Thus, a biscuit dough may be expanded with encapsulated e-soda (sodium bicarbonate coated with hydrogenated canola oil, melt point 110°F).

- IC ICM A21D010-02
CC 17-11 (Food and Feed Chemistry)
IT **Bakery products**
Dough
Emulsifying agents

Leavening agents

(baking-instigated chem. leavening of doughs)

IT Bakery products

(biscuits; baking-instigated chem. leavening of doughs)

L29 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:118421 Document No. 138:121921 Chemical leavening agent with microporous lipid coating. Pacifico, Carl J. (Balchem Corporation, USA). U.S. Pat. Appl. Publ. US 2003031773 A1 20030213, 6 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-924017 20010807.

AB An improved leavening agent and method of baking a bread dough with the improved leavening agent provides a bread dough with improved phys. characteristics by allowing the release of the leavening acid or base at the optimal time during baking. Thus, a leavening agent with 50% sodium bicarbonate and 50% vegetable oil (microporous coating) may be used in bread manuf.

IC ICM A21D002-00

NCL 426551000

CC 17-11 (Food and Feed Chemistry)

IT Bread

Dough**Leavening agents**

(chem. leavening agent with microporous lipid coating)

IT Bakery products

(muffins; chem. leavening agent with microporous lipid coating)

L29 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:894716 Document No. 137:369148 Manufacture of dough for cake doughnuts. Goto, Kenya (Japan). Jpn. Kokai Tokkyo Koho JP 2002335849 A2 20021126, 3 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-144125 20010515.

AB The dough for cake doughnuts is manufd. by using slow-acting baking powder and gently kneading raw materials to prevent incorporation of air into the dough. The dough prevents breaking of doughnuts even when fried in a frozen state.

IC ICM A21D008-02

ICS A21D002-02; A21D013-08

CC 17-11 (Food and Feed Chemistry)

IT Leavening agents

(baking powder, slow-acting; manuf. of (frozen) dough using slow-acting baking powder for doughnuts)

IT Emulsifying agents

(coating on baking powder; manuf. of (frozen) dough using slow-acting baking powder for doughnuts)

IT Fats and Glyceridic oils, biological studies

(coating on baking powder; manuf. of (frozen) dough using slow-acting baking powder for doughnuts)

IT Bakery products

- (doughnuts, frozen; manuf. of (frozen) **dough** using slow-acting baking powder for doughnuts)
- IT Frozen foods
(doughnuts; manuf. of (frozen) **dough** using slow-acting baking powder for doughnuts)
- IT **Dough**
(manuf. of (frozen) **dough** using slow-acting baking powder for doughnuts)
- L29 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
2001:780602 Document No. 135:287911 Freezer-to-oven, laminated, unproofed dough and bakery products derived from the dough. Moder, Gregg; Cammarota, Carina; Hajovy, Melissa (Pillsbury Company, USA). PCT Int. Appl. WO 2001078514 A2 20011025, 42 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US11164 20010405. PRIORITY: US 2000-549486 20000414; US 2000-751510 20001229.
- AB A frozen, unproofed laminated dough that can be baked without being thawed or proofed and that provides a desirable sp. vol. of the baked product includes a layer of dough and shortening layers that alternative with the layer dough. The layer of dough includes flour, a water-binding agent, a leavening agent, a fat source, and water. The sp. vol. of the frozen, unproofed laminated dough is 0.8-1.4 mL/g. From the frozen unproofed laminated dough is prepd. a baked product having a baked sp. vol. of at least 3 mL/g when baked without being thawed or proofed before baking. The frozen, unproofed laminated dough can be used to prep. Danishes, croissants, etc. Thus, croissant dough contains flour 36.15, yeast 2.07, gluten 0.85, butter (in flour-water layers) 7.80, water (food contact) 10.59, guar gum 0.21, pectin 0.64, ascorbic acid 0.002, butter (in shortening layers) 27.6%, plus other ingredients.
- IC ICM A21D010-02
ICS A21D006-00; A21D013-08; A21D002-18; A21D002-26; A21D008-04; A21D002-22
- CC 17-11 (Food and Feed Chemistry)
- IT **Bakery products**
(croissants; freezer-to-oven laminated unproofed **dough**)
- IT Bakers' yeast
Bakery products
Butter
Emulsifying agents

Flavor
 Flavoring materials
 Gelation agents
Leavening agents
 Thickening agents
 Wheat flour
 (freezer-to-oven laminated unproofed **dough**)
 IT Proteins, general, biological studies
 (freezer-to-oven laminated unproofed **dough**)
 IT Collagens, biological studies
 Enzymes, biological studies
 Fats and Glyceridic oils, biological studies
 Gelatins, biological studies
 Glutens
 Shortening
 (freezer-to-oven laminated unproofed **dough**)
 IT Frozen foods
 (frozen **dough**; freezer-to-oven laminated unproofed
 dough)
 IT **Dough**
 (frozen; freezer-to-oven laminated unproofed **dough**)
 IT Gelatins, biological studies
 (hydrolyzates; freezer-to-oven laminated unproofed **dough**
)
 IT Proteins, general, biological studies
 (milk; freezer-to-oven laminated unproofed **dough**)
 IT Diglycerides
 Monoglycerides
 (mixed monoglycerides and diglycerides, esters with
 diacetyltartaric acid; freezer-to-oven laminated unproofed
 dough)
 IT Egg, poultry
 Wheat
 (proteins; freezer-to-oven laminated unproofed **dough**)
 IT Fats and Glyceridic oils, biological studies
 (vegetable, hydrogenated; freezer-to-oven laminated unproofed
 dough)
 IT Fats and Glyceridic oils, biological studies
 (vegetable; freezer-to-oven laminated unproofed **dough**)
 IT 52-90-4, Cysteine, biological studies 9005-25-8, Starch,
 biological studies
 (freezer-to-oven laminated unproofed **dough**)
 IT 50-81-7, Ascorbic acid, biological studies 57-50-1, Sucrose,
 biological studies 7647-14-5, Sodium chloride, biological studies
 9000-01-5, Gum arabic 9000-07-1, Carrageenan 9000-30-0, Guar gum
 9000-69-5, Pectin 9000-92-4, Amylase 9004-32-4,
 Carboxymethylcellulose 9004-34-6, Cellulose, biological studies
 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropylmethyl

cellulose 9004-67-5, Methyl cellulose 9005-32-7, Alginic acid
9025-56-3, Hemicellulase 11138-66-2, Xanthan gum 25383-99-7,
Sodium stearoyl lactylate 80146-85-6, Transglutaminase
(freezer-to-oven laminated unproofed **dough**)

L29 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:128119 Document No. 134:146791 Dough for making puff and other
bakery products. Mori, Ariyoshi; Kaneko, Saburo; Fukuda, Kiyoyuki
(Kanegafuchi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo
Koho JP 2001045959 A2 20010220, 8 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1999-225026 19990809.

AB Wheat flour, fats/oils, water, a leavening agent, and bread crumbs
are mixed to obtain a dough for producing puff. The dough does not
produce large hollow when it is baked. It may include a filling of
bean-jam commonly known as "An" in Japan. The puff presents a good
mouthfeel.

IC ICM A21D002-10

ICS A21D013-00

CC 17-14 (Food and Feed Chemistry)

IT Bread

(crumb; in **dough** for making puff and other
bakery products)

IT Puddings

(custard; **dough** for making puff contg.)

IT Cheese

Chocolate

Cream

Fruit

Jams and Jellies

(**dough** for making puff contg.)

IT Dough

(for making puff and other **bakery products**)

IT Leavening agents

Wheat flour

(in **dough** for making puff and other **bakery**
products)

IT Fats and Glyceridic oils, biological studies

(in **dough** for making puff and other **bakery**
products)

IT Bakery products

(puff; **dough** for making puff and other **bakery**
products)

IT Cream

(whipping; **dough** for making puff contg.)

L29 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:426358 Document No. 133:237072 Contribution of Major Ingredients
during Baking of Biscuit Dough Systems. Chevallier, S.; Colonna,

P.; Della Valle, G.; Lourdin, D. (Institut National de la Recherche Agronomique, Nantes, 44316, Fr.). Journal of Cereal Science, 31(3), 241-252 (English) 2000. CODEN: JCSCDA. ISSN: 0733-5210. Publisher: Academic Press.

- AB Nineteen cookie dough systems were made of a combination of two to nine of the following ingredients: flour, water, fats (coconut and/or palm oils), sugars (sucrose, invert) and chem. leaveners (ammonium bicarbonate, sodium bicarbonate, citric acid and sodium acid pyrophosphate). Their thermal behavior was studied over a large temp. scale (20 °C to 160 °C). Thermal anal. of baking by three different methods (DSC, DMTA and TGA) at the same heating rate (3 °C/min) provided information about phase transitions, vol. and mass changes of doughs during heating. Temp. ranges over which all ingredients reacted were identified. Melting transitions of fats occurred between 10 °C and 50 °C. Sugars increase temps. of starch transitions. Chem. leaveners decrease rise temp., whereas fats and sugars have a delaying effect on their action. The texture of biscuits results from interactions between ingredients; complete dough cannot thus be considered as merely a simple addn. of all components. (c) 2000 Academic Press.
- CC 17-11 (Food and Feed Chemistry)
- IT Cooking
 (baking; contribution of major ingredients during baking of biscuit **dough** systems)
- IT **Dough**
 Food texture
 Leavening agents
 Structural phase transition
 Syrups (sweetening agents)
 (contribution of major ingredients during baking of biscuit **dough** systems)
- IT Carbohydrates, biological studies
 Lipids, biological studies
 Palm oil
 (contribution of major ingredients during baking of biscuit **dough** systems)
- IT **Bakery products**
 (cookies; contribution of major ingredients during baking of biscuit **dough** systems)
- IT Coconut oil
 (hydrogenated; contribution of major ingredients during baking of biscuit **dough** systems)
- IT Food gelling
 (starch; contribution of major ingredients during baking of biscuit **dough** systems)
- IT 57-50-1, Sucrose, biological studies 1066-33-7, Ammonium bicarbonate 8013-17-0, Invert sugar
 (contribution of major ingredients during baking of biscuit

dough systems)

L29 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
2000:84558 Document No. 132:107197 Dough composition for producing low-fat and fat-free snacks. Lanner, David Arthur; Mcdonald, Gerald C.; Hsieh, Yen-Ping Chin; Weber, Michael Wayne; Wehner, Pamela Susan; Anderson, Barbara Ann; Villagran, Maria Dolores Martinez-Serna; Williams, Kenneth Bryan; Heisey, Jacqueline Conrad (The Procter & Gamble Company, USA). PCT Int. Appl. WO 2000004784 A1 20000203, 28 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US16663 19990722. PRIORITY: US 1998-94056 19980724.

AB Low-fat and fat-free snacks (e.g, pretzels) are manufd. with a glossy coating. Thus, pretzels are made with a surface area to inner vol. ratio of from about 22 in.-1 (8.66 cm-1) to about 40 in.-1 (15.75 cm-1), a pH of about 8 or less, a digestible fat content of less than 3 g per 28 g serving, and a moisture content of from about 1% to about 4%. The large surface area to inner vol. ratio permits the use of reduced concns. of caustic soln. and facilitates drying. Coated pretzels are prepd. by: (1) applying a warm coating (a carbohydrate selected from modified starch, corn syrup solids, maltodextrins, dextrins, and their mixts.; water; and flavoring) to ready-to-eat pretzels while tumbling; (2) adding sugar and optionally salt to the tumbling pretzels; (3) removing the pretzels from the tumbling device; and (4) drying the pretzels with the products stationary. The pretzels have improved texture, taste and flavor. Addnl., the color and shiny surface which is characteristic of pretzels is maintained. Thus, a pretzel dough may contain flour 65.90, water 29.0, corn syrup 1.60, wheat gluten 1.50, Olean 1.50, emulsifier 0.40, and yeast 0.1%. A coating may comprise water 53.0, corn syrup solids 12.50, sucrose 25.0, flavoring 8.0, salt 1.40, and honey powder 0.10%,.

IC ICM A21D010-00

ICS A21D008-04; A21D002-16; A21D013-08

CC 17-11 (Food and Feed Chemistry)

IT Meat

(bacon, flavor; **dough** compn. for producing low-fat and fat-free snacks)

IT Carbohydrates, biological studies

(corn syrup solids; **dough** compn. for producing low-fat and fat-free snacks)

- IT Caramel (color)
- Emulsifying agents
- Flavor
- Food texture
- Leavening agents**
- Wheat flour
 - (**dough** compn. for producing low-fat and fat-free snacks)
- IT Carbohydrates, biological studies
- Fat substitutes
- Glutens
- Shortening
 - (**dough** compn. for producing low-fat and fat-free snacks)
- IT Honey
- Malt
- Onion (*Allium cepa*)
 - (flavor; **dough** compn. for producing low-fat and fat-free snacks)
- IT **Dough**
 - (for low-fat and fat-free snacks)
- IT Syrups (sweetening agents)
 - (hydrolyzed starch; **dough** compn. for producing low-fat and fat-free snacks)
- IT Diglycerides
- Diglycerides
- Monoglycerides
- Monoglycerides
 - (mixed monoglycerides and diglycerides, esters with diacetyltartaric acid; **dough** compn. for producing low-fat and fat-free snacks)
- IT Condiments
 - (mustard, flavor; **dough** compn. for producing low-fat and fat-free snacks)
- IT **Bakery products**
 - (pretzels; **dough** compn. for producing low-fat and fat-free snacks)
- IT Food
 - (snack; **dough** compn. for producing low-fat and fat-free snacks)
- IT Cream
 - (sour, flavor; **dough** compn. for producing low-fat and fat-free snacks)
- IT Candy
 - (toffee flavor; **dough** compn. for producing low-fat and fat-free snacks)
- IT Milk preparations
 - (yogurt, flavor; **dough** compn. for producing low-fat and

- fat-free snacks)
- IT 57-50-1; Sucrose, biological studies 9004-53-9, Dextrin
9005-25-8D, Starch, modified derivs., biological studies
9050-36-6, Maltodextrin 121854-29-3, Olean
(dough compn. for producing low-fat and fat-free
snacks)
- L29 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:808775 Document No. 130:37603 Leavening compositions. Rodriguez,
Javier (Gist-Brocades B.V., Neth.). Eur. Pat. Appl. EP 882401 A1
19981209, 5 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR,
GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
(English). CODEN: EPXXDW. APPLICATION: EP 1998-201338 19980424.
PRIORITY: EP 1997-201231 19970424.
- AB A compn. which when baked into a product is capable of causing
leavening, said compn. comprising a leavening system and at least
one lipid or lipid related compd. and being in the form of a paste.
- IC ICM A21D010-00
ICS A21D002-02; A21D002-16
- CC 17-11 (Food and Feed Chemistry)
- IT **Bakery products**
Dough
Emulsifying agents
Food
Hydrocolloids
Leavening agents
(leavening compns.)
- L29 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:474082 Document No. 129:67102 Method for producing food items
with flaked or puffed pastry. Boiteau, Patrick (Groupe Danone S.
A., Fr.). Fr. Demande FR 2755829 A1 19980522, 25 pp. (French).
CODEN: FRXXBL. APPLICATION: FR 1996-13952 19961115.
- AB A laminated pastry is prepd. by using a non-pregelatinized
starch-contg. pastry dough (1st fraction) and a pregelatinized
nonwaxy starch (2nd fraction) contg. 1-35% of the 1st fraction,
20-40% water, and 2-7% fat or oil. Inclusions such as cheese or
dehydrated potato added to the 1st fraction may be used. The
kneaded and uncooked pastry is formed into lamina, cut, and baked to
give a flaked or puffed surface.
- IC ICM A23P001-08
ICS A23P001-14; A23L001-217; A23L001-10
- CC 17-11 (Food and Feed Chemistry)
- IT Cereal (grain)
Cheese
Dough
Flavor
Flours and Meals

Leavening agents

Vegetable

Wheat flour

(method for producing food items with flaked or puffed pastry)

IT **Bakery products**

(pastries; method for producing food items with flaked or puffed pastry)

L29 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

1998:147179 Document No. 128:191895 Encapsulated salt particles for use in baking yeast-raised bakery products. McLaughlin, John Richard; Redd, Randall Vann; Redding, Bruce Kinge, Jr. (E. I. Du Pont de Nemours & Co., USA). PCT Int. Appl. WO 9807324 A1 19980226, 41 pp. DESIGNATED STATES: W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1997-US14509 19970819. PRIORITY: US 1996-700137 19960820.

AB The invention is directed to an encapsulated salt compn. comprising cryst. sodium chloride encapsulated within a water-resistant thermoplastic shell, in which are randomly dispersed finely divided particles of ascorbic acid, and optionally, a bicarbonate leavening agent, and to methods for baking bromate-free, yeast-raised bakery products therefrom. The ascorbic acid particles have a bimodal particle size distribution. At least 50 wt.% of the ascorbic acid particles are finely divided, and at least 20 wt.% of the ascorbic acid particles are coarse.

ICM A21D002-02

ICS A21D002-22

CC 17-6 (Food and Feed Chemistry)

IT **Bakery products**

Bread

Dough**Leavening agents**

Odor and Odorous substances

Taste

Wheat flour

Yeast

(encapsulated salt particles for use in baking yeast-raised bakery products)

IT Cottonseed oil

Glutens

(encapsulated salt particles for use in baking yeast-raised bakery products)

IT Bicarbonates

(metal salts; encapsulated salt particles for use in baking yeast-raised **bakery products**)

IT **Bakery products**

(rolls; encapsulated salt particles for use in baking yeast-raised **bakery products**)

IT 50-81-7, L-Ascorbic acid, biological studies 144-55-8, Sodium bicarbonate, biological studies 298-14-6, Potassium bicarbonate 1066-33-7, Ammonium bicarbonate 4075-81-4, Calcium propionate 5006-97-3, Lithium bicarbonate 7647-14-5, Sodium chloride, biological studies 25383-99-7

(encapsulated salt particles for use in baking yeast-raised **bakery products**)

L29 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

1996:607477 Document No. 125:246145 Heat set, flour based products. Duurland, Franciscus W. J.; Klaassen, Maarten J. (Loders Crokiaan B.V., Neth.). Eur. Pat. Appl. EP 728415 A1 19960828, 7 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1996-200367 19960215. PRIORITY: EP 1995-200428 19950222.

AB Heat-set, flour-based products with excellent taste and performance are obtained by providing a flour based, heat set product with a layer contg. a fat having 35-80% SUS-triglycerides (where S is a satd. fatty acid with 16-18 carbon length and U is an unsatd. fatty acid with 16-22 carbon length), < 5% S1S1S1 triglycerides (where S1 is a satd. fatty acid with 10-24 carbon length) and 7 - 60 % (U2S + U3) triglycerides.

IC ICM A21D002-16

ICS A21D013-00; A21D013-08; A21D010-00

CC 17-11 (Food and Feed Chemistry)

IT Butter

Chocolate

Coloring materials

Dairy products

Dough

Egg

Emulsifying agents

Flavoring materials

Flours and Meals

Leavening agents

Taste

Yeast

(heat-set products made with flour and contg. triglycerides to improve taste and performance)

IT **Bakery products**

(cakes, batter; heat-set products made with flour and contg. triglycerides to improve taste and performance)

IT **Bakery products**

(pastries, heat-set products made with flour and contg. triglycerides to improve taste and performance)

L29 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

1996:365891 Document No. 125:32403 Pre-molded, filled or topped dough systems. Boode-Boissevain, Karin; Dijkshoorn, Jacobus; Schreurs, Rudolf Richardus (Unilever N.V., Neth.; Unilever Plc). PCT Int. Appl. WO 9611577 A1 19960425, 15 pp. DESIGNATED STATES: W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1995-EP4033 19951012. PRIORITY: EP 1994-202971 19941013.

AB Unbaked or pre-baked dough products such as pizzas or short-crust doughs have improved microwave properties when the products are provided with a moisture barrier layer. Therefore, the pre-molded dough comprises 25-65% flour, 0-40% fat, 0-5% salt, 0-7% leavener, 0-35% of a flour encapsulated in oil or fat, 10-50% water, while a barrier layer is present comprising less than 5 wt.% of water and oil and a water binder in a ratio of (90:10) to (20:80), which barrier layer represents 0.1-35 wt.% of the wt. of the dough layer.

IC ICM A21D013-00

ICS A21D013-08; A21D002-16

CC 17-11 (Food and Feed Chemistry)

IT Dietary fiber

Dough

Flours and Meals

Gums and Mucilages

Leavening agents

(pre-molded, filled or topped **dough** systems)

IT Carbohydrates and Sugars, biological studies

Fats and Glyceridic oils

Gelatins, biological studies

(pre-molded, filled or topped **dough** systems)

IT Coating materials

(impermeable, pre-molded, filled or topped **dough** systems)

IT Cooking

(microwave, pre-molded, filled or topped **dough** systems)

IT **Bakery products**

(pies, apple; pre-molded, filled or topped **dough** systems)

IT **Bakery products**

(pizza, pre-molded, filled or topped **dough** systems)

IT **Bakery products**

(quiches, pre-molded, filled or topped **dough** systems)

IT 9000-69-5, Pectin 9005-25-8, Starch, biological studies
(pre-molded, filled or topped **dough** systems)

L29 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

1985:613807 Document No. 103:213807 Reduced calorie baked goods.
Dartey, Clemence Kumah; Biggs, Richard Henzy (Nabisco Brands, Inc.,
USA). Eur. Pat. Appl. EP 155889 A2 19850925, 82 pp. DESIGNATED
STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE. (English).
CODEN: EPXXDW. APPLICATION: EP 1985-400453 19850308. PRIORITY: US
1984-589588 19840314.

AB Reduced caloric (by $\geq 25\%$, preferably $\geq 33\%$) bakery
products, esp. cookies, of pH 6.8-9.0 and good texture are manufd.
by using an alk. agent and leavening system with lowered amts. of
caloric-contg. materials. A typical compn. contains fluor 10-30,
fat or shortening 0-15, sugar 5-20, polydextrose 5-20, cellulosic
bulking agent 4-15%, emulsifier 0-10, and leavening system 0.5-3%.
The leavening system contains ≥ 1 bicarbonate and(or)
carbonate salt and ≥ 1 acidifier. Thus, crispy chocolate chip
cookies are manufd. using dough prepd. from the following
ingredients: flour 18, pregelatinized wheat starch [9005-25-8] 8,
potato flakes 2, malt flour 0.5, microcryst. cellulose [9004-34-6]
7, NaHCO_3 0.62, $\text{Na}_2\text{H}_2\text{P}_2\text{O}_7$ 0.37, NH_4HCO_3 0.59, $(\text{NH}_4)_2\text{HPO}_4$ 0.39,
sucrose [57-50-1] 13.75, vegetable shortening 7, Softex
[51465-15-7] emulsifier 0.3, Emplex [25383-99-7] emulsifier 0.3
polydextrose-N [68424-04-4] 15, flavorants 1.55, NaOH (50% aq.
soln.) 0.43, water 14.5, and chocolate drops 9.7%.

IC ICM A21D002-18

ICS A21D002-16; A21D013-08

CC 17-11 (Food and Feed Chemistry)

IT **Bakery products**
(calorie-low)

IT **Dough**

Emulsifying agents

Leavening agents

Wheat flour

Carbohydrates and Sugars, biological studies

Fats, biological studies

Shortening

(in calorie-low cookie manuf.)

IT **Bakery products**

(cookies, calorie-low)

=> => d his full

(FILE 'HOME' ENTERED AT 14:25:58 ON 04 MAR 2004)

FILE 'REGISTRY' ENTERED AT 14:26:08 ON 04 MAR 2004

E MONOCALCIUM(W) PHOSPHATE/CN
 E MONOCALCIUM PHOSPHATE/CN
 L1 2 SEA "MONOCALCIUM PHOSPHATE"/CN
 E SODIUM ACID PYROPHOSPHATE/CN
 E SODIUM PYROPHOSPHATE/CN
 L2 1 SEA "SODIUM PYROPHOSPHATE"/CN
 E SODIUM ALUMINUM PYROPHOSPHATE/CN
 L3 1 SEA "SODIUM ALUMINUM PYROPHOSPHATE"/CN
 E DICALCIUM PHOSPHATE/CN
 L4 2 SEA "DICALCIUM PHOSPHATE"/CN OR "DICALCIUM PHOSPHATE
 DIHYDRATE"/CN
 L5 1 SEA SODIUM ALUMINUM PHOSPHATE/CN
 E GLUCON DELTA LACTONE/CN
 E GLUCON LACTONE/CN
 E GLUCONLACTONE/CN
 E POTASSIUM HYDROGEN TARTRATE/CN
 L6 1 SEA "POTASSIUM HYDROGEN TARTRATE"/CN
 E BAKING/CN
 L7 1 SEA "BAKING SODA"/CN
 L8 8 SEA L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7

 FILE 'HCAPLUS' ENTERED AT 14:35:55 ON 04 MAR 2004
 L9 11366 SEA BATTER OR DOUGH#
 L10 495103 SEA FLOUR OR SUGAR OR EGG OR EGGS OR MILK OR SORBIC(W)ACI
 D
 L11 61382 SEA PANCAKE? OR BREAD# OR BROWNIE# OR MUFFIN# OR COOKIE#
 OR DONUT# OR DOUGHNUT# OR PASTRY OR PASTRIES OR PIE OR
 L12 1172770 SEA FAT OR FATTY OR WAX OR WAXES OR WAXY OR OIL# OR
 BUTTER#
 L13 37371 SEA BAKING(W) (SODA# OR POWDER# OR ACID) OR LEAVENING(2A) (
 AGENT# OR ACID# OR BASE# OR ALKALIN?) OR ACIDULANT# OR
 SODIUM(W)BICARBONATE OR BICARBONATE(2A)SODA? OR L8 OR
 MONOCALCIUM(W) PHOSPHATE# OR SODIUM(2A) PYROPHOSPHATE# OR
 DICALCIUM(W) PHOSPHATE#
 L14 2489 SEA SODIUM(W)ALUMINUM(W) PHOSPHATE? OR GLUCON?(2A) LACTON?
 OR POTASSIUM(W)HYDROGEN(W) TARTRATE# OR CREAM(2A) TARTAR
 OR BAKING(W)ACID#
 L15 39400 SEA L13 OR L14
 L16 631454 SEA AGITAT? OR DISRUPT? OR SHAKE# OR SHAKING OR MIX OR
 MIXES OR MIXING
 L17 1322368 SEA SEPARAT? OR ISOLAT? OR ENCAPSULAT? OR COMPARTMENTAL?

 L18 5 SEA L9 AND L15 AND L16 AND L17
 D SCAN
 L19 5262 SEA DOUGH/IT
 L*** DEL 7731 S BAKERY(W) PRODUCTS/IT
 L*** DEL 427 S LEAVENING(W)AGENTS/IT

L20 427 SEA (LEAVENING(W)AGENTS)/IT
L21 7731 SEA (BAKERY(W)PRODUCTS)/IT
L22 57 SEA L19 AND L20 AND L21
L23 10 SEA L22 AND L16
L24 14 SEA L18 OR L23
L25 47 SEA L22 NOT L24
L26 61 SEA L24 OR L25
L27 27 SEA L26 AND (OIL OR OILS OR SHORTENING)
L28 28 SEA L25 NOT (L27 OR L24)
L29 19 SEA L26 NOT (L24 OR L28)
L30 61 SEA L26 AND L15
L31 0 SEA L30 NOT L26
D L24 1-14 CBIB ABS HITSTR HITIND
D L28 1-28 CBIB ABS HITSTR HITIND
D L29 1-19 CBIB ABS HITSTR HITIND

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 3 MAR 2004 HIGHEST RN 658036-92-1

DICTIONARY FILE UPDATES: 3 MAR 2004 HIGHEST RN 658036-92-1

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for detail

Experimental and calculated property data are now available. For mor information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

FILE HCAPLUS

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FILE COVERS 1907 - 4 Mar 2004 VOL 140 ISS 10
FILE LAST UPDATED: 3 Mar 2004 (20040303/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> ? show files

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200415
(c) 2004 Thomson Derwent
File 347:JAPIO Oct 1976-2003/Oct(Updated 040202)
(c) 2004 JPO & JAPIO
File 8:EI Compendex(R) 1970-2004/Feb W4
(c) 2004 Elsevier Eng. Info. Inc.
File 10:AGRICOLA 70-2004/Jan
(c) format only 2004 The Dialog Corporation
File 51:Food Sci.&Tech.Abs 1969-2004/Feb W5
(c) 2004 FSTA IFIS Publishing
File 53:FOODLINE(R): Food Science & Technology 1972-2004/Mar 03
(c) 2004 LFRA
File 54:FOODLINE(R): Market Data 1979-2004/Mar 01
(c) 2004 LFRA
File 79:Foods Adlibra(TM) 1974-2002/Apr
(c) 2002 General Mills
File 94:JICST-EPlus 1985-2004/Feb W4
(c)2004 Japan Science and Tech Corp(JST)
File 144:Pascal 1973-2004/Feb W4
(c) 2004 INIST/CNRS
? ds

Set	Items	Description
S1	55374	BATTER OR DOUGH
S2	17470	BAKING(W) (SODA OR POWDER OR ACID) OR LEAVENING(2N) (AGENT OR ACID OR BASE OR ALKALIN?) OR ACIDULANT? OR SODIUM(W)BICARBONATE OR BICARBONATE(2N)SODA
S3	4913	MONOCALCIUM(2N)PHOSPHATE? OR SODIUM(2A)PYROPHOSPHATE? OR DICALCIUM(2N)PHOSPHATE? OR SODIUM(W)ALUMINUM(W)PHOSPHATE? OR GLUCON?(2N)LACTON? OR POTASSIUM(W)HYDROGEN(W)TARTRATE? OR CREAM(2A)TARTAR
S4	22010	S2 OR S3
S5	472414	AGITAT? OR DISRUPT? OR DISTURB? OR SHAKE OR SHAKES OR SHAKING
S6	852788	MIX OR MIXES OR MIXING
S7	1293512	S5 OR S6
S8	3194260	SEPARAT? OR ISOLAT? OR ENCAPSULAT? OR COMPARTMENTAL?
S9	1239792	OIL OR OILS OR OILY OR BUTTER OR SHORTENING

S10 18 S8(4N)S4(4N)S9
 S11 6 S10 AND S1
 S12 12 S10 NOT S11
 S13 282 S4(4N)S8
 S14 46 S13 AND S1
 S15 40 S14 NOT S10
 S16 16 S15 AND S9
 S17 24 S15 NOT S16
 S18 46 S11 OR S15
 S19 3 S18 AND S5
 S20 19 S18 AND S6
 S21 20 S19 OR S20
 S22 26 S18 NOT S21
 ? t s21/7,de/1-20

21/7,DE/1 (Item 1 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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015803643

WPI Acc No: 2003-865846/200380

Frozen microwaveable bakery product, e.g. bread products, comprises
 cereal grain flour, baker's yeast to leaven bread dough, salt, granulated
 sucrose, emulsifier, shortening, food grade oil, blend of sweeteners, and
 water

Patent Assignee: KDC FOODS INC (KDCF-N)

Inventor: KANDLER C R; KRAKLOW H K

Number of Countries: 096 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200392388	A1	20031113	WO 2003US13368	A	20030429	200380 B

Priority Applications (No Type Date): US 2002376068 P 20020429

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200392388	A1	E	61	A21D-010/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
 CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
 JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL
 PT RO RU SD SE SG SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB
 GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ
 UG ZM ZW

Abstract (Basic): WO 200392388 A1

Abstract (Basic):

NOVELTY - A frozen microwaveable bakery product, e.g. bread
 products, comprises (wt.%) cereal grain flour (40-58) having protein

content of 12-16 wt.%, baker's yeast (2-7) to leaven bread dough, salt (0.5-1), granulated sucrose 0.5-3), emulsifier (0.5-1.5), shortening (1-4.25), food grade oil (0.2-1.5), blend of sweeteners (4-8), and water (25-60).

DETAILED DESCRIPTION - Frozen microwaveable bakery product, e.g. bread products, comprises (wt.%) cereal grain flour (40-58) having protein content of 12-16 wt.% to provide sufficiently extensible dough to result in leavened bread dough with open grain structure similar to normally associated with other breads, baker's yeast (2-7) to leaven bread dough, salt (0.5-1), granulated sucrose 0.5-3), emulsifier (0.5-1.5), shortening (1-4.25), food grade oil (0.2-1.5), blend of sweeteners (4-8), and water (25-60). The blend of sweeteners has water activity reducing agents to bind water in a formulated dough product to reduce the amount of free moisture in the dough product, and minimize sublimation of moisture in frozen bakery products when stored in frozen storage. It includes (wt.%) corn syrup (30-100), liquid sucrose (0.1-70), and imitation vanilla (0.1-10). An INDEPENDENT CLAIM is also included for a method of preparing bakery product comprising providing dough having cereal grain flour, baker's yeast, salt, granulated sucrose, emulsifier, shortening, food grade oil, blend of sweeteners, and water; adding the flour and yeast to a mixing container to form a dry flour and yeast mixture; adding the salt and granulated sucrose to the dry flour and yeast mixture to form dry ingredients mixture; adding the remaining ingredients with the exception of water to the mixed dry ingredients mixture and mixing slowly to form pre-dough mixture; adding water to pre-dough mixture and mixing simultaneously until the resulting dough is extensible; cutting, rounding, and forming the dough into unfrozen bakery products; proofing the unfrozen bakery products through heating in proofing box at temperature of 105-128degreesF at relative humidity of 40-60% for 10-30 minutes; and freezing the bakery products through reducing the temperature of the unfrozen bakery products to temperature of at most 0degreesF for a period of 30 seconds to 20 minutes to form frozen dough segments.

USE - For use as frozen microwaveable bakery product with open grain structure, e.g. bread products.

ADVANTAGE - The invention can be placed in the frozen state directly into a baking oven, e.g. microwave oven, without slack time, and is acceptable to consumers.

pp; 61 DwgNo 0/0

Title Terms: FREEZE; BAKE; PRODUCT; BREAD; PRODUCT; COMPRISE; CEREAL; GRAIN ; FLOUR; BAKE; YEAST; LEAVEN; BREAD; DOUGH; SALT; GRANULE; SUCROSE; EMULSION; SHORTENING; FOOD; GRADE; OIL; BLEND; SWEET; WATER

Derwent Class: D11

International Patent Class (Main): A21D-010/00

21/7,DE/2 (Item 2 from file: 350)
DIALOG(R) File 350:Derwent WPIX

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015608974

WPI Acc No: 2003-671131/200363

Scoopable dough e.g. for forming biscuits, pizza dough or coffee cake, comprises placing frozen dough piece in oven without intermediate thawing or proofing step and baking frozen dough pieces to form leavened backed good

Patent Assignee: BRAGINSKY I E (BRAG-I); GRAVES J (GRAV-I); HASSE R (HASS-I); HENRY L (HENR-I); MARTIN J (MART-I); YARUSSO C (YARU-I)

Inventor: BRAGINSKY I E; GRAVES J; HASSE R; HENRY L; MARTIN J; YARUSSO C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030138540	A1	20030724	US 2000523133	A	20000310	200363 B
			US 2001898773	A	20010702	
			US 2002224545	A	20020819	
			US 2002317741	A	20021212	

Priority Applications (No Type Date): US 2002317741 A 20021212; US 2000523133 A 20000310; US 2001898773 A 20010702; US 2002224545 A 20020819

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030138540	A1		11	A21D-010/00	Cont of application US 2000523133 Cont of application US 2001898773 CIP of application US 2002224545 Cont of patent US 6436458

Abstract (Basic): US 20030138540 A1

Abstract (Basic):

NOVELTY - Preparation of a scoopable dough comprises forming dough into shaped and sized portions, freezing portions to form frozen pieces, placing frozen dough piece(s) in oven without an intermediate thawing or proofing step and baking frozen dough pieces to form leavened backed good having (baked specific volume) BVS of at least 2 cc/g.

DETAILED DESCRIPTION - Preparation of a scoopable dough comprises forming dough into shaped and sized portions, freezing portions to form frozen pieces, placing frozen dough piece(s) in oven without an intermediate thawing or proofing step and baking frozen dough pieces to form leavened backed good having BVS of at least 2 cc/g. The dough comprises flour, protein supplement, shortening, humectant, leavening system, and water. The flour and protein supplement provide structure for the dough. The shortening body provides desirable physical texture to the dough. The humectant provides water activity (Aw) of less than 0.97. The leavening system comprises 10-100 wt.% leavening agent encapsulated by complementary leavening agent. The flour-and-water ratio is 2:1 to 1:1.

USE - For forming leavened baked goods e.g. cut biscuits, drop biscuits, dumplings, flat bread, crackers, pizza dough, doughnuts, fritters, hushpuppies (Sic.), muffins, pastry crusts, coffee cake, quick bread, scones and cobbler-type crust.

ADVANTAGE - The dough can be in the form of individual single-serve units and can be in placed in an oven or baked without an intermediate thawing or proofing step.

pp; 11 DwgNo 0/0

Title Terms: DOUGH; FORMING; BISCUIT; PIZZA; DOUGH; COFFEE; CAKE; COMPRISE; PLACE; FREEZE; DOUGH; PIECE; OVEN; INTERMEDIATE; THAW; PROOF; STEP; BAKE; FREEZE; DOUGH; PIECE; FORM; LEAVEN; BACK

Derwent Class: D11

International Patent Class (Main): A21D-010/00

21/7,DE/3 (Item 3 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015441174

WPI Acc No: 2003-503316/200347

Ingredient for leavening bread dough, comprises chemical leavening agent encapsulated with microporous lipid coating

Patent Assignee: BALCHEM CORP (BALC-N)

Inventor: PACIFICO C J

Number of Countries: 101 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030031773	A1	20030213	US 2001924017	A	20010807	200347 B
WO 200313259	A1	20030220	WO 2002US25041	A	20020807	200347

Priority Applications (No Type Date): US 2001924017 A 20010807

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20030031773	A1		6	A21D-002/00	
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WO 200313259	A1 E			A21D-013/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20030031773 A1

Abstract (Basic):

NOVELTY - An ingredient for leavening bread dough comprises chemical leavening agent encapsulated with a microporous lipid coating.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a bread dough composition which comprises the chemical leavening ingredient, containing chemical leavening agent with a microporous lipid coating; and

(2) a method of making bread with a more efficient leavening system which involves incorporating the leavening ingredient.

USE - For the manufacture of bread dough such as muffin, biscuit dough or pizza shell composition.

ADVANTAGE - The leavening ingredient efficiently improves physical characteristics of bread dough such as volume yield and provides reduced amount of discoloration of finished bread product. The ingredient allows hydration of coated leavening agent at a reduced temperature. The leach rate of the ingredient is relatively high and the microporous coating provides an effective encapsulant during baking.

pp; 6 DwgNo 0/0

Title Terms: INGREDIENT; LEAVEN; BREAD; DOUGH; COMPRISE; CHEMICAL; LEAVEN; AGENT; ENCAPSULATE; MICROPOROUS; LIPID; COATING

Derwent Class: D11

International Patent Class (Main): A21D-002/00; A21D-013/00

21/7,DE/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015280386

WPI Acc No: 2003-341317/200332

Cookie dough for use in making baked food product, includes preselected amounts of flour, sugar including fluid corn syrup/sugar blend, shortening, eggs, emulsifier, leavening, and mold inhibitor

Patent Assignee: KANDLER C R (KAND-I); KRAKLOW H K (KRAK-I)

Inventor: KANDLER C R; KRAKLOW H K

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030008050	A1	20030109	US 2001290396	P	20010514	200332 B
			US 2001946494	A	20010906	

Priority Applications (No Type Date): US 2001290396 P 20010514; US 2001946494 A 20010906

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030008050	A1		9	A21D-002/00	Provisional application US 2001290396

Abstract (Basic): US 20030008050 A1

Abstract (Basic):

NOVELTY - A cookie dough comprises flour, sugar including fluid corn syrup/sugar blend, shortening, eggs, emulsifier, leavening, and mold inhibitor. The cookie dough has a water activity (Aw) of less than 0.75, a pH greater than 7.0, and is shelf stable at room temperature.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for preparing a cookie dough comprising mixing sugar, fluid corn syrup/sugar blend, shortening, eggs, emulsifier, flavoring, salt and mold inhibitor to form a creamed slurry, mixing flour with the creamed slurry to produce a first dough mixture, and mixing leavening with the first dough mixture to produce a final cookie dough product.

USE - Used as cookie dough for making baked food product.

ADVANTAGE - The invention can be stored at ambient temperatures for extended periods without degradation. It produces a baked food product that is acceptable to consumers.

pp; 9 DwgNo 0/0

Title Terms: COOKIE; DOUGH; BAKE; FOOD; PRODUCT; PRESELECTED; AMOUNT; FLOUR
; SUGAR; FLUID; CORN; SYRUP; SUGAR; BLEND; SHORTENING; EGG; EMULSION;
LEAVEN; MOULD; INHIBIT

Derwent Class: D11

International Patent Class (Main): A21D-002/00

21/7,DE/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015268653

WPI Acc No: 2003-329582/200331

Sweet goods dough with preset water activity, pH and stable against microbiological growth for preparing baked products e.g. cookies, comprises flour, sugar, eggs, emulsifier, leavening and mold inhibitor

Patent Assignee: KANDLER C R (KAND-I); KRAKLOW H K (KRAK-I)

Inventor: KANDLER C R; KRAKLOW H K

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030003214	A1	20030102	US 2001290396	P	20010514	200331 B
			US 2001946494	A	20010906	
			US 2002189895	A	20020703	

Priority Applications (No Type Date): US 2001290396 P 20010514; US
2001946494 A 20010906; US 2002189895 A 20020703

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030003214	A1		12	A21D-002/00	Provisional application US 2001290396

CIP of application US 2001946494

Abstract (Basic): US 20030003214 A1

Abstract (Basic):

NOVELTY - A sweet goods dough, comprises flour, sugar including fluid corn syrup/sugar blend, shortening, eggs, emulsifier, leavening and mold inhibitor. The dough has water activity (Aw) of less than 0.75, pH of 6.5-8.5 and stable against microbiological growth and component separation at both room temperature and ambient atmosphere.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) method for preparing sweet goods dough, which involves mixing sugar, fluid corn syrup/sugar blend, shortening, eggs, emulsifier, flavoring, salt and mold inhibitor to form a creamed slurry, mixing flour with the creamed slurry to produce a dough mixture-I and mixing leavening with the dough mixture-I to produce a final sweet goods dough product; and

(2) method for transferring and packaging the sweet goods dough composition, which involves providing a filling machine with a dough reservoir and a dough transfer mechanism, filling the dough reservoir with a sweet goods dough composition and transferring the composition from the dough reservoir via the dough transfer mechanism to a dough container.

USE - For preparing baked products such as cookies, brownies, cakes, sweet breads, pie dough and muffins.

ADVANTAGE - The dough composition remains free from microbiological growth at both room temperature and ambient temperature and thereby maintains an extended shelf life. The dough composition does not require refrigeration or freezing during manufacture or storage. Hence refrigeration during transportation and storage of the sweet goods dough is eliminated. The flour component provides texture, taste and appearance to the final baked product. The baked product obtained from sweet dough remains moist, pliable and palatable for up to two weeks after baking. Since sterilization and cooling process is not required, the manufacturing cost is minimized.

pp; 12 DwgNo 0/0

Title Terms: SWEET; GOODS; DOUGH; PRESET; WATER; ACTIVE; PH; STABILISED; MICROBIOLOGICAL; GROWTH; PREPARATION; BAKE; PRODUCT; COOKIE; COMPRISE; FLOUR; SUGAR; EGG; EMULSION; LEAVEN; MOULD; INHIBIT

Derwent Class: D11

International Patent Class (Main): A21D-002/00

21/7,DE/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014605949

WPI Acc No: 2002-426653/200245

Ready-to-use dough article for preparing, e.g. sweet rolls, comprises

gas-impermeable container, dough having cellular network that is free of active leavening agent, and inert gas disposed within the container
 Patent Assignee: GEN MILLS INC (GENM)
 Inventor: KREISMAN L R; LANGLER J E; NARAYANASWAMY V; SOOD V; TOBELMANN D W
 Number of Countries: 097 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200235936	A1	20020510	WO 2001US47109	A	20011105	200245 B
AU 200227290	A	20020515	AU 200227290	A	20011105	200258
EP 1331852	A1	20030806	EP 2001992505	A	20011105	200353
			WO 2001US47109	A	20011105	

Priority Applications (No Type Date): US 2000707184 A 20001106

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200235936	A1	E	19	A21D-010/02	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200227290	A			A21D-010/02	Based on patent WO 200235936
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EP 1331852	A1	E		A21D-010/02	Based on patent WO 200235936
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200235936 A1

Abstract (Basic):

NOVELTY - A ready-to-use dough article comprises a gas-impermeable container, dough having a cellular network disposed within the container, and an inert gas disposed within the container and the dough. The dough comprises flour, fat and water. It is free of an active leavening agent and has less than 4% residual oxygen. The water activity is less than 0.85.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method for making a ready-to-use dough article comprising preparing a dry blend having flour, preparing a wet blend having water and fat, mixing the wet and dry blends to form a dough having water and injecting an inert gas into the dough to form a dough that comprises a cellular structure.

USE - For preparing, e.g. sweet rolls, scones, quick breads, biscuits (claimed), or English muffins.

ADVANTAGE - The inventive ready-to-use dough article provides an expanded baked product. The resultant finished baked goods have springy texture. They are expanded or leavened and have densities of 0.3-0.6 g/cc. They are ready for immediate consumption or can be prepared on a commercial scale for distribution.

pp; 19 DwgNo 0/0

Title Terms: READY; DOUGH; ARTICLE; PREPARATION; SWEET; ROLL; COMPRISE; GAS
; IMPERMEABLE; CONTAINER; DOUGH; CELLULAR; NETWORK; FREE; ACTIVE; LEAVEN;
AGENT; INERT; GAS; DISPOSABLE; CONTAINER

Derwent Class: D11

International Patent Class (Main): A21D-010/02

21/7,DE/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014565075

WPI Acc No: 2002-385778/200242

Composition useful for reducing blood cholesterol in a patient comprises
a polyvalent cation source and a fat

Patent Assignee: PROCTER & GAMBLE CO (PROC)

Inventor: JANDACEK R J; PROSISE R L; TROUT J E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2364503	A	20020130	GB 200111039	A	20010504	200242 B

Priority Applications (No Type Date): US 2000202242 P 20000505

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
GB 2364503	A	108	A23L-001/308	

Abstract (Basic): GB 2364503 A

Abstract (Basic):

NOVELTY - A composition comprises polyvalent cation source (I) and a fat. The composition comprises (I) to provide at least 50 mg of the polyvalent cation for a single serving (30 g, 100 calorie reference serving). The fat is selected from partially digestible lipids and/or non-digestible lipids.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for reducing blood cholesterol in a patient by administering (a) a polyvalent cation or (I); and/or (b) a non-digestible fat or its source.

ACTIVITY - Cardiant; Antilipemic; Hypotensive; Antidiabetic; Anticholesterol.

MECHANISM OF ACTION - Hypercholesterolemic saturated fatty acid bioavailability blocker; Bile acid excretion enhancer.

USE - (I) is used for reducing blood cholesterol in a patient (claimed), for treating, preventing and/or inhibiting heart disease and treating conditions e.g. hypercholesterolemia, hypertension, poor circulation and complications associated with diabetes.

ADVANTAGE - The composition provides various general health

benefits including hypocholesterolemic and cardiac benefits and is low in triglyceride fat. The composition can be eaten alone or in combination with additional materials to produce an array of heart healthy food compositions without compromising the enjoyment of the normal dietary habits and dietary habits. Thus the composition provides single food convenience and solves the palatability problems and further increases the heart health benefits obtained from the heart healthy compositions. The composition is easily provided as a pharmaceutical or food product (preferably food product) and may be delivered in kit form having advantage of disseminating information to the consumer regarding various health benefits and dose regimens of the composition.

pp; 108 DwgNo 0/0

Title Terms: COMPOSITION; USEFUL; REDUCE; BLOOD; CHOLESTEROL; PATIENT; COMPRISE; POLYVALENT; CATION; SOURCE; FAT

Derwent Class: B06; D13

International Patent Class (Main): A23L-001/308

International Patent Class (Additional): A23L-001/304; A61K-031/7024; A61K-033/10; A61P-009/00

21/7,DE/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014375370

WPI Acc No: 2002-196073/200225

Ready-to-use food product, used in making baked food product, has oil which separates batter and leavening agent while in storage

Patent Assignee: ENCAPSULATION SYSTEMS INC (ENCA-N); REDDING B K (REDD-I); ROY R B (ROYR-I)

Inventor: REDDING B K; ROY R B

Number of Countries: 094 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200211544	A1	20020214	WO 2001US24258	A	20010803	200225 B
US 20020064587	A1	20020530	US 2000223259	P	20000803	200240
			US 2001289577	P	20010508	
			US 2001921980	A	20010803	
AU 200184696	A	20020218	AU 200184696	A	20010803	200244

Priority Applications (No Type Date): US 2001289577 P 20010508; US 2000223259 P 20000803; US 2001921980 A 20010803

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200211544 A1 E 82 A21D-010/04

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP

KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

US 20020064587 A1 A21D-010/04 Provisional application US 2000223259

Provisional application US 2001289577
AU 200184696 A A21D-010/04 Based on patent WO 200211544

Abstract (Basic): WO 200211544 A1

Abstract (Basic):

NOVELTY - A ready-to-use food product comprises a batter (2), at least one leavening agent, and at least one oil (4). The oil separates the batter and leavening agent while in storage, and agitation causes the batter, leavening agent, and oil to at least partially admix.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for preparing a storable culinary product comprising adding aqueous unleavened batter to a container, forming a layer of oil above the aqueous acidified batter, and adding edible alkaline leavening agent above the oil layer.

USE - Used as ready-to-use food product, e.g. liquid batter or dough, for use in making baked food product, pancake, bread, brownie, muffin, cookie, donut, pastry, pie or cake (claimed).

ADVANTAGE - The ready-to-use food product is uniform, stable, and results in a baked good or dough product with good appearance, even shape and good taste profile. It is also better conditioned for refrigerator and freezer storage.

DESCRIPTION OF DRAWING(S) - The figure shows a watertight container partially broken away to illustrate a batter.

Batter (2)

Oil (4)

pp; 82 DwgNo 1/5

Title Terms: READY; FOOD; PRODUCT; BAKE; FOOD; PRODUCT; OIL; SEPARATE;
BATTER; LEAVEN; AGENT; STORAGE

Derwent Class: D11

International Patent Class (Main): A21D-010/04

21/7,DE/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014086602

WPI Acc No: 2001-570816/200164

Scoopable dough for preparing baked product, e.g. cut biscuits, comprises flour, protein supplement, shortening, humectant, leavening system, and water

Patent Assignee: PILLSBURY CO (PILL); PILLSBURY CO INC (PILL)

Inventor: BRAGINSKY I; EL HMAMSI M; FLOYD C; HASSE R; HENRY L; KUECHLE K;
RATKA K

Number of Countries: 096 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200167870	A1	20010920	WO 2001US6391	A	20010228	200164 B
US 20020001655	A1	20020103	US 2000523133	A	20000310	200207
			US 2001898773	A	20010702	
AU 200141843	A	20010924	AU 200141843	A	20010228	200208
US 6436458	B2	20020820	US 2000523133	A	20000310	200257
			US 2001898773	A	20010702	
EP 1261258	A1	20021204	EP 2001913152	A	20010228	200280
			WO 2001US6391	A	20010228	
US 20030118702	A1	20030626	US 2000523133	A	20000310	200343
			US 2001898773	A	20010702	
			US 2002224545	A	20020819	
ZA 200207181	A	20031126	ZA 20027181	A	20020906	200402

Priority Applications (No Type Date): US 2000523133 A 20000310; US
2001898773 A 20010702; US 2002224545 A 20020819

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200167870	A1	E	39	A21D-006/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL
PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

US 20020001655	A1		A21D-010/00	Cont of application US 2000523133
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AU 200141843	A		A21D-006/00	Based on patent WO 200167870
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US 6436458	B2		A21D-010/00	Cont of application US 2000523133
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EP 1261258	A1	E	A21D-006/00	Based on patent WO 200167870
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

US 20030118702	A1		A23B-004/00	Cont of application US 2000523133
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Cont of application US 2001898773

Cont of patent US 6436458

ZA 200207181	A		42	A21D-000/00
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Abstract (Basic): WO 200167870 A1

Abstract (Basic):

NOVELTY - Developing a dough that can be stored at freezing and refrigeration temperatures and that can still provide desirable baked products.

DETAILED DESCRIPTION - A scoopable dough comprises flour and protein supplement for providing structure to the dough, a shortening for providing desirable physical texture to the dough, a humectant for

providing a water activity (Aw) of at most 0.97, a leavening system comprising 10-100 wt.% leavening agent and/or complementary leavening agent, and water for providing a flour-to-water ratio of 2:1-1:1.

An INDEPENDENT CLAIM is also included for a method of preparing the scoopable dough comprising blending flour, protein supplement, shortening, and humectant to form a mixture of dry ingredients; and mixing water with the mixture of dry ingredients at 45-70degrees F and under low shear and work input until the ingredients are integrated to form a scoopable dough.

USE - For preparing a baked product, e.g. cut biscuits, drop biscuits, dumplings, flat bread, crackers, pizza dough, doughnuts, fritters, hushpuppies, muffins, pastry crusts, coffee cake, quick bread, scones, or cobbler-type crusts (claimed).

ADVANTAGE - The dough has a consistency of 300-1200 (preferably 400-1000) BU, and a torque profile of 0.3 - at least 3 (preferably 0.6-2.8) N-cm within 10 minutes of mixing. It is storage stable at ambient pressure and freezing temperature of at most 30degreesF or 30-50degrees F (claimed). It is shelf stable with or without storage, under a vacuum for 2-6 months at freezing temperatures, and shelf stable thawing without storage under a vacuum of 1-7 days at refrigeration temperatures.

pp; 39 DwgNo 0/2

Title Terms: DOUGH; PREPARATION; BAKE; PRODUCT; CUT; BISCUIT; COMPRISE; FLOUR; PROTEIN; SUPPLEMENT; SHORTENING; HUMECTANT; LEAVEN; SYSTEM; WATER

Derwent Class: D11

International Patent Class (Main): A21D-000/00; A21D-006/00; A21D-010/00; A23B-004/00

International Patent Class (Additional): A21D-010/04; A21D-013/00

21/7,DE/10 (Item 10 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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013966268

WPI Acc No: 2001-450482/200148

Batter or dough for making products, e.g. muffins and cakes, has cookable fluid, and capsules having shell with lipid and core with leavening agent

Patent Assignee: GEN MILLS INC (GENM)

Inventor: DARAINGAS G V; NARAYANASWAMY V

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6261613	B1	20010717	US 2000504523	A	20000215	200148 B

Priority Applications (No Type Date): US 2000504523 A 20000215

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 6261613 B1 10 A21D-010/00

Abstract (Basic): US 6261613 B1

Abstract (Basic):

NOVELTY - A batter or dough comprises capsules; and a cookable fluid having a pH of 3.8-6.3. The capsules are dispersed in the fluid. Each capsule comprises a shell comprising a lipid melting at a pre-selected temperature of 35-51.7 degreesC, and a core comprising a leavening agent.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (1) an article, comprising the batter or dough; and an unpressurizable container for containing and storing the batter;
- (2) a method of preparing a dough or batter that is storable without pressurization, comprising adding the capsules to the cookable fluid to form the dough or batter;
- (3) a method of making a yeast from leavened bread from stored dough, comprising providing capsules that each comprise a core comprising a yeast and the shell that melts at 40-55 degreesC; adding the capsule to the provided cookable fluid to form a storable dough; adding the storable dough to a container which is not pressurized; storing the dough at a refrigeration temperature; proofing the dough at 40-55 degreesC; and baking the dough to make a leavened bread;
- (4) a method of making pancakes from stored batter, comprising providing capsules that each comprise a core comprising sodium bicarbonate and the shell that melts at 35-44 degreesC; adding the capsules to the provided cookable fluid to form pancake batter; storing the batter in a container that is free of pressurization at a refrigeration temperature; and cooking the batter to make a pancake;
- (5) a method of preserving a batter or dough in a flowable condition during storage, comprising preparing the batter or dough that has an acidic pH and a water activity; maintaining the water activity within a range effective to retard microbial growth; adding preservatives to the batter or dough effective at an acidic pH; and adding the capsules;
- (6) a method of testing integrity of batter or dough in storage, comprising storing the batter or dough at a refrigeration temperature; measuring pH of the batter or dough; and discarding the batter or dough if the pH is outside range of 3.8-6.3; and
- (7) a dry mix, comprising the capsules; and flour, sugar, salt, shortening, milk solids, egg solids, flavoring, and/or coloring.

USE - For making products, e.g. muffins, pancakes, brownies, biscuits and cookies, cakes or yeast leavened bread.

ADVANTAGE - The inventive batter or dough produces a baked good having excellent organoleptic properties. It does not require heat pasteurization because of the combination factors that are used to preserve the batter.

pp; 10 DwgNo 0/1

Title Terms: BATTER; DOUGH; PRODUCT; MUFFIN; CAKE; COOK; FLUID; CAPSULE;

SHELL; LIPID; CORE; LEAVEN; AGENT
 Derwent Class: D11
 International Patent Class (Main): A21D-010/00

21/7,DE/11 (Item 11 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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013607089

WPI Acc No: 2001-091297/200110

A leavened dough extrusion process for the formation of leavened dough products without altering its texture characteristics upon freeze-thawing or reheating in a microwave oven

Patent Assignee: PILLSBURY CO (PILL)

Inventor: GENG Q; HAYES-JACOBSON S M

Number of Countries: 091 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200076321	A1	20001221	WO 2000US5426	A	20000302	200110 B
US 6180151	B1	20010130	US 99329512	A	19990610	200113
AU 200035097	A	20010102	AU 200035097	A	20000302	200121
US 20010028910	A1	20011011	US 99329512	A	19990610	200162
			US 2001754794	A	20010104	
EP 1189514	A1	20020327	EP 2000913700	A	20000302	200229
			WO 2000US5426	A	20000302	
JP 2003523731	W	20030812	WO 2000US5426	A	20000302	200355
			JP 2001502677	A	20000302	
US 6607763	B2	20030819	US 99329512	A	19990610	200356
			US 2001754794	A	20010104	
CN 1450860	A	20031022	CN 2000808702	A	20000302	200406

Priority Applications (No Type Date): US 99329512 A 19990610; US 2001754794 A 20010104

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200076321 A1 E 66 A21D-008/02

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

US 6180151 B1 A23B-004/03

AU 200035097 A Based on patent WO 200076321

US 20010028910 A1 A23P-001/12 Cont of application US 99329512

Cont of patent US 6180151

EP 1189514 A1 E A21D-008/02 Based on patent WO 200076321

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI

JP 2003523731 W 69 A21D-008/02 Based on patent WO 200076321
US 6607763 B2 A21D-010/00 Cont of application US 99329512
Cont of patent US 6180151
CN 1450860 A A21D-008/02

Abstract (Basic): WO 200076321 A1

Abstract (Basic):

NOVELTY - An extrusion process for the formation of leavened dough products that have a texture unchanged even after a freeze-thaw cycle or after reheating in a microwave oven

DETAILED DESCRIPTION - A leavened dough product is formed, by extruding a mixture of flour, water and chemical leavener at less than 145degreesF (62.8degreesC). The leavener comprises a leavening acid and a salt of a carbonate or bicarbonate anion. The leavener releases sufficient carbon dioxide from the formation of the mixture through the extrusion to decrease the density of the dough by 5% or more relative to the corresponding extruded dough without the chemical leavener.

INDEPENDENT CLAIMS are also included for a similar process by forming a mixture of flour and leavener, combining this with an aqueous liquid to form a premix, and extruding this. Also, a fried filled product having a filling of water activity more than 0.9, having a cooked dough around the filling with an inner dense high moisture layer that extends through 25% or less of the cooked dough thickness. Also, a similar fried filled dough product that can withstand a freeze-thaw cycle without exhibiting any change in its texture. Also, a cooked filled dough product that can withstand reheating in a microwave oven without its texture being changed.

USE - The process is useful for forming leavened filled or unfilled dough products which can be fried with uniform cooking throughout the dough

ADVANTAGE - Extrusion is performed at temperatures that do not cook or gelatinize the starch within the dough, such that carbon dioxide is released over time producing extruded dough products with desirable characteristics

DESCRIPTION OF DRAWING(S) - A schematic sectional view is shown of an extrusion apparatus with an optional premixer, where the cross section is taken through the carrier of the apparatus

pp; 66 DwgNo 1/10

Title Terms: LEAVEN; DOUGH; EXTRUDE; PROCESS; FORMATION; LEAVEN; DOUGH; PRODUCT; ALTER; TEXTURE; CHARACTERISTIC; FREEZE; THAW; REHEAT; MICROWAVE; OVEN

Derwent Class: D11

International Patent Class (Main): A21D-008/02; A21D-010/00; A23B-004/03; A23P-001/12

International Patent Class (Additional): A21C-003/04; A21C-011/16; A21D-002/02; A21D-002/16; A21D-002/18; A21D-013/00; A23L-001/164;

A23L-001/18; A23L-002/40; A23P-001/14

21/7,DE/12 (Item 12 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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012989372

WPI Acc No: 2000-161225/200014

Formulation of a chemically leavened dough or bakery product having characteristics to those which are yeast-leavened without using yeast as the source of carbon dioxide

Patent Assignee: SOLUTIA INC (SLTA); ASTARIS LLC (ASTA-N)

Inventor: BOOK S; CORLISS G; HEIDOLPH B B; HEIDOLPH B

Number of Countries: 087 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200004782	A1	20000203	WO 99US16568	A	19990721	200014 B
AU 9952217	A	20000214	AU 9952217	A	19990721	200029
US 6149960	A	20001121	US 9894050	P	19980724	200101
			US 99358609	A	19990721	
BR 9912405	A	20010424	BR 9912405	A	19990721	200128
			WO 99US16568	A	19990721	
EP 1100338	A1	20010523	EP 99937372	A	19990721	200130
			WO 99US16568	A	19990721	
MX 2001000805	A1	20020501	WO 99US16568	A	19990721	200368
			MX 2001805	A	20010123	

Priority Applications (No Type Date): US 9894050 P 19980724; US 99358609 A 19990721

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200004782 A1 E 41 A21D-002/02

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9952217 A A21D-002/02 Based on patent WO 200004782

US 6149960 A A21D-008/02 Provisional application US 9894050

BR 9912405 A A21D-002/02 Based on patent WO 200004782

EP 1100338 A1 E A21D-002/02 Based on patent WO 200004782

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

MX 2001000805 A1 A21D-010/00 Based on patent WO 200004782

Abstract (Basic): WO 200004782 A1

Abstract (Basic):

NOVELTY - Manufacture of a chemically leavened bakery product (e.g. bread) without using yeast as the source of carbon dioxide for leavening, yet achieving characteristics in the product similar to those obtained with products leavened by yeast

DETAILED DESCRIPTION - A chemically leavened dough is prepared by:

- (a) adding
 - (i) 1 or more slow release leavening acid and
 - (ii) 1 or more heat-activated leavening acid to dry ingredients of a dough made by mixing them with a liquid, such that the additions are made in any order, apart or together, and
- (b) adding a carbonate factor late in the dough mixing process to form the dough.

INDEPENDENT CLAIMS are also included for:

- (1) a bakery product prepared from the dough, such that the dough is formed into a shape, proofed, then heated to form the product;
- (2) a multipart dry mix for forming the dough, which comprises 2 or more parts which can be usefully combined, collectively comprising acids (i) and (ii), carbonate factor, and optional flour. When flour is used, then most of the flour and most of the carbonate factor are in separate parts.

USE - The process is useful for forming hamburger buns; wiener rolls; tortillas; gorditas; pretzels; flat bread; brown-and-serve rolls; bagels; white pan, hearth, whole wheat, and rye bread; enriched bread, rolls and buns; milk bread, rolls and buns; whole wheat rolls and buns; raised bread, rolls and buns; pizza crusts; sweet doughs; caramel roll-type products; doughnuts; Danishes and specialty breads.

ADVANTAGE - The quality of a wide range of bakery products formed is consistent, eliminating the need for fermentation and reducing proofing times

pp; 41 DwgNo 0/0

Title Terms: FORMULATION; CHEMICAL; LEAVEN; DOUGH; BAKE; PRODUCT;
CHARACTERISTIC; YEAST; LEAVEN; YEAST; SOURCE; CARBON

Derwent Class: D11

International Patent Class (Main): A21D-002/02; A21D-008/02; A21D-010/00

International Patent Class (Additional): A21D-001/004; A21D-010/02;
A21D-010/04

21/7,DE/13 (Item 13 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012914372

WPI Acc No: 2000-086208/200007

Preparation of a tamale roll from a dough comprising wheat gluten and a humectant

Patent Assignee: NESTEC SA (NEST)

Inventor: GUM E K; HSU J Y; KNUDSEN K F; WYANT L B

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6007858	A	19991228	US 98197749	A	19981120	200007 B

Priority Applications (No Type Date): US 98197749 A 19981120

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6007858	A		3	A21D-002/26	

Abstract (Basic): US 6007858 A

Abstract (Basic):

NOVELTY - A method for the preparation of a tamale roll which does not break easily on bending or folding, and which can be stored at refrigerator temperatures, is new.

DETAILED DESCRIPTION - A method for the preparation of a tamale roll which does not break easily on bending or folding, and which can be stored at refrigerator temperatures, comprises:

- (1) mixing corn, shortening and water with the wheat gluten;
- (2) sheeting and folding the dough formed;
- (3) steaming the roll obtained; and
- (4) cooling it.

Sheeting consists of rolling the dough between 2 sheets of parchment paper to a thickness of 0.25 - 1.25 cm. The sheeted dough is folded by wrapping it around an edible filling or around a mechanical support. The roll obtained is kept frozen or packaged in nitrogen gas and/or carbon dioxide and refrigerated.

INDEPENDENT CLAIMS are also included for a tamale roll is prepared from a dough comprising corn (i.e. maize) and 1 - 15% by weight (wt%) wheat gluten (relative to the dough). The dough is prepared from corn, shortening and water.

USE - A tamale roll is formed (which is similar to taco shells) for use in tortillas so that an edible filling can be placed upon it to make it ready for serving.

ADVANTAGE - A firm structure is formed so that the product does not break easily on bending or folding, and can be stored at refrigerated temperatures.

pp; 3 DwgNo 0/0

Title Terms: PREPARATION; ROLL; DOUGH; COMPRISE; WHEAT; GLUTEN; HUMECTANT

Derwent Class: D11

International Patent Class (Main): A21D-002/26

21/7,DE/14 (Item 1 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00850164 2002-Mv1242 SUBFILE: FSTA

Ready-to-use food product.

Redding, B. K., Jr.; Roy, R. B.

PATENT CO.: United States Patent Application Publication 2002

PATENT NO.: US 2002/0064587 A1

NOTE: US 223259 (20000803) [Redding Jr., Broomall, PA, USA]

DOCUMENT TYPE: Patent

LANGUAGE: English

A ready-to-use food and a method for its manufacture are described. The food includes a batter, GREATER THAN OR EQUAL 1 leavening agent and GREATER THAN OR EQUAL 1 oil. The oil separates batter from leavening agent while in a storage container, while agitation of the container results in at least partial mixing of the components.

DESCRIPTORS (HEADINGS): BAKERY ADDITIVES; BAKERY PRODUCTS; COATINGS; OILS ; PATENTS; PROCESSED FOODS

DESCRIPTORS: BATTERS; RAISING AGENTS; READY TO EAT FOODS

21/7,DE/15 (Item 2 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

(c) 2004 FSTA IFIS Publishing. All rts. reserv.

00707608 96-01-t0002 SUBFILE: FSTA

Manufacturing flavors made better.

Anon.

World of Ingredients 1995 , Sept./Oct., 44-45

PUBLISHER: TasteTech, Wilverley Ind. Estate, 813/815 Bath Rd.,
Brislington, Bristol, BS4 5NL. Tel. +44(117)9712719. Fax +44(117)9720052.

DOCUMENT TYPE: Journal Article ISSN: 1380-491X

LANGUAGE: English

The CR100 process for flavouring encapsulation, developed by TasteTech (UK), is discussed with reference to its ability to utilize carrier materials tailored to suit the food in which the flavouring is to be used. Six carriers used in this process are described, including hydrogenated fats and fat based emulsions. CR100 processing mechanisms are outlined, including drying temp. and in-line injection of flavourings, acids and sweetener components. Use of CR100 process in bakery, dairy and ready meal manufacturing is described. Encapsulation of sodium bicarbonate in bakery products to prevent premature reaction and loss of carbon dioxide is outlined, applications include frozen dough and batter mixes and dry cake mixes. Contribution of CR100 sodium bicarbonate to shelf life extension and performance of finished baked goods is considered. Use of the CR100 system for release of other agents in the baking industry is discussed including flavourings, essential oils and spice oleoresins. CR100 system is used to carry flavourings in cheese, dairy dessert and yoghurt beverage manufacture, and to stabilise flavourings in ready meals. Advantages of the CR100 system in food manufacturing are discussed with reference to flavouring stability, increased concn. and reduced requirement levels for flavourings. (VAJ)

DESCRIPTORS (HEADINGS): Flavourings; Encapsulation; Bakery additives
DESCRIPTORS: MICROENCAPSULATION; FOODS
GENERAL DESCRIPTORS: Additives

21/7,DE/16 (Item 1 from file: 53)
DIALOG(R)File 53:FOODLINE(R): Food Science & Technology
(c) 2004 LFRA. All rts. reserv.

00904633 FOODLINE ACCESSION NUMBER: 577885

Ready-to-use food product.

Redding B K; Roy R B

PATENT ASSIGNEE: Encapsulation Systems Inc

PATENT: WO 0211544 A1

APPLICATION COUNTRY: US (DATE(S):3.8.2000 8.5.2001)

PRIORITY APPLICATION DATE: 3.8.2001

DESIGNATED STATES:

SeepublishedpatentdocumentforDesignatedContractingStates.

NOTES: 14.2.2002

X-REFERENCE: BAKERY PRODUCTS

LANGUAGE: English

DOCUMENT TYPE: Patent

FOODLINE UPDATE CODE: 20020327

ABSTRACT: A ready-to-use product such as liquid batter or dough comprises a batter, at least one leavening agent and at least one oil. The oil separates the batter and leavening agent during storage, while agitation of the components causes them to mix ready for use. The product has even leavening action and extended shelf life, and provides baked products or dough products with good appearance, even shape and/or good taste.

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: BAKERY PRODUCTS; LIQUID BATTER; PATENT; PCT PATENT; READY TO USE BATTER; READY TO USE DOUGH

21/7,DE/17 (Item 2 from file: 53)
DIALOG(R)File 53:FOODLINE(R): Food Science & Technology
(c) 2004 LFRA. All rts. reserv.

00887757 FOODLINE ACCESSION NUMBER: 561425

Refrigerated and shelf-stable bakery dough products.

Narayanaswamy V; Daravingas G V

PATENT ASSIGNEE: General Mills Inc

PATENT: US 6261613 B

NOTES: Date of publication: 17.7.2001

X-REFERENCE: BAKERY PRODUCTS

LANGUAGE: English

DOCUMENT TYPE: Patent

FOODLINE UPDATE CODE: 20010824

ABSTRACT: This invention concerns intermediate products for domestic preparation of baked goods. It covers refrigerated or frozen batters and shelf-stable batter, dry mix and dough products. A common problem with this type of product has been oxidative deterioration in storage, resulting in a baked product that does not meet consumer expectations. The leavening reaction in prepared doughs must also be carefully controlled, and various techniques to achieve a storage life of more than a few days have been investigated (packaging under pressure in cardboard tubes, control of water activity and pH, and controlled exposure of ingredients to each other). This invention specifically discloses a batter of dough comprising capsules and a fluid in which the capsules are dispersed. Each capsule has a lipid shell that melts over a narrow temperature range, which encapsulates a leavening agent. The flowability of the batter or dough is maintained by using a combination of acid pH, control of water activity and refrigerated storage. Pressurization is not required. The product shelf life is claimed to be at least 8 weeks. Suggested applications include pancake mix and ready-to-cook bread.

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: ENCAPSULATED LEAVENING AGENTS; PANCAKE MIXES; PATENT; READY TO BAKE BREAD; READY TO BAKE BREAD PRODUCTS; SHELF STABLE BATTERS; SHELF STABLE DOUGH; US PATENT

21/7,DE/18 (Item 3 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Food Science & Technology

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00819669 FOODLINE ACCESSION NUMBER: 500882

Method of preparing dough.

Laughlin D L; DeMars J A

PATENT ASSIGNEE: Pillsbury Co

PATENT: EP 929225 A1

PATENT: WO 9814065 DATE:19980409

APPLICATION COUNTRY: US (DATE(S):19960903)

PRIORITY APPLICATION DATE: 19970909

DESIGNATED STATES:

SeepublishedpatentdocumentforDesignatedContractingStates.

X-REFERENCE: BAKERY PRODUCTS

LANGUAGE: English

DOCUMENT TYPE: Patent

FOODLINE UPDATE CODE: 19990813

ABSTRACT: A method of preparing dough is disclosed, in which two batters, one containing a leavening acid and the other a leavening base, are formulated separately and then mixed. This double-batter-mixing method provides faster mixing and leavening. The resulting dough has improved proofing and packaging properties, and produces baked products with a

higher specific volume. The invention is particularly applicable to canned refrigerated dough products for biscuits, rolls, bread sticks, pizza crusts, laminated pastries, etc. (See also WO 98/14064.)

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: BAKERY ADDITIVES; BAKERY PRODUCTS; BREAD; BREAD ROLLS; CANNED DOUGH; DISTRIBUTION; DOUGH; DOUGH PRODUCTS; EUROPEAN PATENT; IMPROVEMENT; LEAVENING AGENTS; PATENT; PRODUCTION; REFRIGERATED DOUGH

21/7,DE/19 (Item 4 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Food Science & Technology

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00701130 FOODLINE ACCESSION NUMBER: 410528

Designing chemical leavening systems.

Heidolph B B

Cereal Foods World 41 (3), 118-122+124-126 (10 ref.)

1996

ISSN NO: 0146-6283

LANGUAGE: English

DOCUMENT TYPE: Journal article

FOODLINE UPDATE CODE: 19960618

ABSTRACT: The advantages of chemical raising agents as alternatives to yeast in bakery products are considered. Mechanisms of chemical leavening by either decomposition or neutralisation are explained. Raising agents may be selected on the basis of neutralising value, rate of reaction in the dough, extent of batter expansion, and batter reaction rate, and examples are given of dough and batter reaction rates for various raising agents. Agents recommended for different types of products are listed. Characteristics of sodium, potassium, and ammonium bicarbonates are described. Acidic raising agents may be of the following types: nucleating agents, such as monocalcium phosphate (monohydrate or anhydrous), and organic acids, which react with sodium bicarbonate during mixing or in the bowl; time-released agents, such as sodium acid pyrophosphate, granular fumaric acid, and glucono-delta-lactone; and heat-activated agents, such as sodium aluminium sulfate, sodium aluminium phosphate, dimagnesium phosphate, dicalcium phosphate dihydrate, and other encapsulated agents. The properties of these acidulants are summarised. Finally, the formulation of baking powders is discussed.

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: BAKERY PRODUCTS; LEAVENING AGENTS; MECHANISMS; PROPERTIES; RAISING; RATE

21/7,DE/20 (Item 5 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Food Science & Technology

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00643964 FOODLINE ACCESSION NUMBER: 470066

Method of preparing dough.

Laughlin D L; DeMars J A

PATENT ASSIGNEE: Pillsbury Co

PATENT: WO 9814065 A1

APPLICATION COUNTRY: US (DATE(S):19960903)

PRIORITY APPLICATION DATE: 19970909

DESIGNATED STATES:

SeepublishedpatentdocumentforDesignatedContractingStates.

X-REFERENCE: BAKERY PRODUCTS

LANGUAGE: English

DOCUMENT TYPE: Patent

FOODLINE UPDATE CODE: 19980624

ABSTRACT: A method of preparing dough is disclosed, in which two batters, one containing a leavening acid and the other a leavening base, are formulated separately and then mixed. This double-batter-mixing method provides faster mixing and leavening. The resulting dough has improved proofing and packaging properties, and produces baked products with a higher specific volume. The invention is particularly applicable to canned refrigerated dough products for biscuits, rolls, bread sticks, pizza crusts, laminated pastries, etc. (See also WO 98/14064.)

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: BAKERY PRODUCTS; BREAD; CANNED DOUGH; DISTRIBUTION; DOUGH; DOUGH PRODUCTS; IMPROVEMENT; LEAVENING AGENTS; PCT PATENT; PRODUCTION; REFRIGERATED DOUGH; ROLLS

? t s22/7,de/1-26

22/7,DE/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014532027

WPI Acc No: 2002-352730/200239

Edible dough for use in food article, chocolate chip cookie dough and friable baked cookie dough, comprises fat such as single fractionated fat, double fractionated fat and/or cocoa butter

Patent Assignee: GEN MILLS INC (GENM)

Inventor: DRANTCH C Y; KREISMAN L R

Number of Countries: 002 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
CA 2355014	A1	20020215	CA 2355014	A	20010813	200239 B
US 20030003213	A1	20030102	US 2000639016	A	20000815	200305
			US 2002224863	A	20020820	
US 6551640	B1	20030422	US 2000639016	A	20000815	200330
US 6592925	B2	20030715	US 2000639016	A	20000815	200348

US 2002224863 A 20020820

Priority Applications (No Type Date): US 2000639016 A 20000815; US
2002224863 A 20020820

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CA 2355014	A1	E	26	A21D-010/00	
US 20030003213	A1			A21D-010/00	Cont of application US 2000639016
US 6551640	B1			A21D-008/02	
US 6592925	B2			A21D-010/02	Cont of application US 2000639016 Cont of patent US 6551640

Abstract (Basic): CA 2355014 A1

Abstract (Basic):

NOVELTY - An edible dough comprises a fat such as single fractionated fat, double fractionated fat and/or cocoa butter.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a food article which comprises the dough comprising the fat, and a container for enclosing and storing the dough;

(2) method for preventing flavor chip, chocolate chip or other fat-bearing particle softening and melting in the dough, which involves adding flavor chips or chocolate chips to the dough comprising single fractionated fat, double fractionated fat and/or cocoa butter, and adding the dough with the flavor chips, chocolate chips or fat-bearing particles to a container;

(3) a chocolate chip cookie dough which comprises margarine, the fat, and chocolate chips. The margarine is a carrier for the fat; and

(4) a friable baked cookie dough.

USE - As edible dough, such as brownie dough or batter, aerated cake batter, scone dough or batter and biscuit dough or batter, for use in food article, chocolate chip cookie dough and friable baked cookie dough, for use in preparing chemically leavened product such as quick bread, yeast leavened product or cookie, for preventing flavor chip, chocolate chip or other fat-bearing particle softening and melting in dough, and for use in food products such as shelf-stable dough for baked goods.

ADVANTAGE - The novel ready-to-use dough is efficiently utilized in baking, to provide baked product such as chocolate chip cookie.

Ready-to-bake cookie dough receives chocolate chips or other fat-bearing chips with increased resistance to excessive softening or melting of the chip during storage at ambient temperatures. Double fractionated fat has a sharp melt point and improved mouth-feel due to the removal of fat melting fractions above body temperature. Confectionery fats melt smoothly and rapidly in the mouth, giving a cooling effect with no greasy impression on the palate. The fat utilized in cookie dough, is compatible, and with correct melt profile minimizes or eliminates the melting point depression associated with

the fat migration. Chocolate chips maintain their integrity during storage in the dough. Confectionery fats does not produce any polymorphism. Shelf-stable cookie dough is efficiently produced. The cookie dough is resistant to oil migration and does not display chocolate chip or fat-bearing chip softening at room temperature. The presence of fractionated fats in the cookie dough produces improvements in the stability of chocolate chips over prolonged storage at room temperatures. Some of the cookie dough products do not require any conventional activated acid/soda chemical leavening system. The packaged ready-to-bake dough articles do not require heat treatment such as pasteurization or refrigeration in order to obtain shelf stability. The dough products have excellent microbial stability and retain good baking properties for as long as 4-9 months at room temperature storage. The finished baked goods are ready for immediate consumption or can be prepared on a commercial scale for distribution.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of a container and the dough within the container.

pp; 26 DwgNo 1/1

Title Terms: EDIBLE; DOUGH; FOOD; ARTICLE; CHOCOLATE; CHIP; COOKIE; DOUGH; FRIABLE; BAKE; COOKIE; DOUGH; COMPRISE; FAT; SINGLE; FRACTIONATE; FAT; DOUBLE; FRACTIONATE; FAT; COCOA; BUTTER

Derwent Class: D11

International Patent Class (Main): A21D-008/02; A21D-010/00; A21D-010/02

International Patent Class (Additional): A21D-008/00; A21D-013/08; A23G-001/00

22/7,DE/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014213779

WPI Acc No: 2002-034477/200204

Soy-based, flaked food product used as snack or breakfast food comprised combination of defatted soyflakes and palatable components

Patent Assignee: PURDUE RES FOUND (PURD); BIEHLE A M (BIEH-I); DAVIS A L (DAVI-I); GRAY J A (GRAY-I); ROZZI N L (ROZZ-I); SOLCO A K (SOLC-I); ZIMMER L A (ZIMM-I)

Inventor: BIEHLE A M; DAVIS A L; GRAY J A; ROZZI N L; SOLCO A K; ZIMMER L A

Number of Countries: 095 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200182723	A1	20011108	WO 2001US13481	A	20010426	200204 B
AU 200155706	A	20011112	AU 200155706	A	20010426	200222
US 6391374	B1	20020521	US 2000562127	A	20000501	200239
US 20030008061	A1	20030109	US 2000562127	A	20000501	200311
			US 2002146648	A	20020514	

Priority Applications (No Type Date): US 2000562127 A 20000501; US
2002146648 A 20020514

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200182723	A1	E	23	A23L-001/10	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS
JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL
PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200155706	A			A23L-001/10	Based on patent WO 200182723
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US 6391374	B1			A23L-001/20	
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US 20030008061	A1			A23L-001/20	Div ex application US 2000562127 Div ex patent US 6391374
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Abstract (Basic): WO 200182723 A1

Abstract (Basic):

NOVELTY - A soy-based, flaked food product comprises defatted soy flakes (a), cereal grain (b), exogenous source of protein (c) and isolated food starch, where (a) is present in greater amounts than (b).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of producing a flaked food product involving pre-toasting defatted soy flakes and incorporating the pre-toasted, defatted soy flakes into the flaked food product.

USE - As snack or breakfast food.

ADVANTAGE - Palatable components when combined with defatted soy flakes mask or otherwise reduce the gritty texture of the soy flakes so that a nutritious, delicious food product is obtained having a desirable texture and taste. As soy flakes are used, the food product is an inexpensive way to enable customers to enjoy the nutrition and other benefits of soy products. The food product is an excellent source of protein, a good source of fiber, is low in fat and is cholesterol-free.

pp; 23 DwgNo 0/0

Title Terms: SOY; BASED; FLAKE; FOOD; PRODUCT; SNACK; BREAKFAST; FOOD;
COMPRISE; COMBINATION; DEFATTED; SOY; FLAKE; PALATE; COMPONENT

Derwent Class: D13

International Patent Class (Main): A23L-001/10; A23L-001/20

International Patent Class (Additional): A23L-001/20

22/7,DE/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013815157

WPI Acc No: 2001-299369/200131

Ready-to-make batter article for preparing brownies comprises a gas-impermeable container containing high pH, low water activity, high sugar to flour brownie batter and an inert low oxygen gas in the headspace of the container

Patent Assignee: GEN MILLS INC (GENM)

Inventor: KREISMAN L R; LANGLER J E; NARAYANASWAMY V; TOBELMANN D W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6224925	B1	20010501	US 99322208	A	19990528	200131 B
			US 99427994	A	19991027	

Priority Applications (No Type Date): US 99427994 A 19991027; US 99322208 A 19990528

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6224925	B1	7	A21D-004/00	CIP of application US 99322208

Abstract (Basic): US 6224925 B1

Abstract (Basic):

NOVELTY - A ready-to-bake batter article comprises a gas-impermeable container and a batter disposed within the container. The batter comprises sugar, flour (in the ratio of at least 1.5:1 - 3.5:1), edible fatty triglycerides and moisture (5 - 25%). The batter has water activity of less than 0.85, the pH of 6 - 8.5. A leavening system consists of an inert gas disposed within the container and within the batter, so that the container has a residual oxygen content of less than 4%.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for method of fabricating the ready-to-make brownie article involving dispensing the brownie batter within at least a portion of the open sealable, gas impermeable container. The brownies comprise (%) sugar (25 - 70), flour (10 - 40), egg solid (0 - 5), salt (0.1 - 3), emulsifiers (0 - 4), fat (0 - 25 preferably 1 - 25) and moisture (5 - 25).

USE - For preparing brownies (claimed) e.g. chocolate-flavored and vanilla-flavored brownies; and also other baked goods such as bar cookies, chewy granola, snack bars and blondies.

ADVANTAGE - The batter article is shelf stable at room temperature and has improved convenience in usage. The article can be produced without the chemical leavening system, as compared to the prior art batters. The packaged batter article does not require heat treatment such as pasteurization or refrigeration in order to obtain shelf stability. The products also have microbial stability and retain their good baking properties for as long as 4 - 9 months at room temperature storage. The container or their portions can serve as disposable baking container and use of the container as a baking container adds further convenience by eliminating transfer of the batter from the container to the baking utensil. The finished baked goods produced from the batter

have a highly moist but not sticky or tacky texture. The finished baked goods are ready for immediate consumption or can be prepared on a commercial scale for refrigerated distribution.

pp; 7 DwgNo 0/0

Title Terms: READY; BATTER; ARTICLE; PREPARATION; COMPRISE; GAS; IMPERMEABLE; CONTAINER; CONTAIN; HIGH; PH; LOW; WATER; ACTIVE; HIGH; SUGAR; FLOUR; BATTER; INERT; LOW; OXYGEN; GAS; CONTAINER

Derwent Class: D11

International Patent Class (Main): A21D-004/00

International Patent Class (Additional): A21D-010/04; A21D-013/00

22/7,DE/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013673989

WPI Acc No: 2001-158201/200116

Ready-to-use batter article for baked goods, e.g. brownies, includes a gas impermeable container, a low water activity batter, and unpressurized, inert low oxygen gas in unfilled headspace

Patent Assignee: GEN MILLS INC (GENM)

Inventor: KREISMAN L R; LANGLER J E; METZGER L E; NARAYANASWAMY V;

TOBELMANN D W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6165524	A	20001226	US 99398729	A	19990917	200116 B
			US 99428026	A	19991027	

Priority Applications (No Type Date): US 99428026 A 19991027; US 99398729 A 19990917

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6165524	A		8	A21D-010/04	CIP of application US 99398729

Abstract (Basic): US 6165524 A

Abstract (Basic):

NOVELTY - A ready-to-use batter article comprises a batter disposed within a gas-impermeable container, and an inert gas of less than 4% residual oxygen disposed within the container. The batter comprises flour, sugar, moisture content, fat, emulsifier, leavening system, and salt. The sugar/flour ratio is 0.5:1-2.5:1. The batter has less than 0.85 water activity, and 6-8.5 pH.

DETAILED DESCRIPTION - A ready-to-use batter article comprises a batter disposed within a gas-impermeable container, and an inert gas of less than 4% residual oxygen disposed within the container. The batter comprises (%) flour, sugar, moisture content (5-30), fat (1-25),

emulsifier (0.1-6), leavening system, and salt. The sugar/flour ratio is 0.5:1-2.5:1. The batter has less than 0.85 water activity, and 6-8.5 pH. At least a portion of the fat is palm oil hardstock. An INDEPENDENT CLAIM is also included for a method of fabricating a ready-to-use bake article comprising dispensing a batter on at least a portion of an open sealable, gas impermeable container, filling a headspace portion of the container, and sealing the container to form a shelf stable ready-to-bake batter article. The batter comprises (%) sugar (25-75), flour (10-40), egg solids (0.5), and salt (0.1-3).

USE - For baked goods e.g., brownies, cakes, cookies, or muffins.

ADVANTAGE - The batter article is shelf stable at room temperatures for extended periods and does not require refrigeration storage.

pp; 8 DwgNo 0/0

Title Terms: READY; BATTER; ARTICLE; BAKE; GOODS; GAS; IMPERMEABLE; CONTAINER; LOW; WATER; ACTIVE; BATTER; UNPRESSURISED; INERT; LOW; OXYGEN; GAS; UNFILLED

Derwent Class: D11

International Patent Class (Main): A21D-010/04

International Patent Class (Additional): A21D-010/00; A21D-010/02

22/7,DE/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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004321514

WPI Acc No: 1985-148392/198525

Cookie dough storable without refrigeration - contains viscous sweetener, sucrose, shortening, flour, encapsulated leavening agent and humectant

Patent Assignee: NABISCO BRANDS INC (NATY)

Inventor: MICHNOWSKI J E; SIMMS R C; TANCORDO F L

Number of Countries: 015 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 145550	A	19850619	EP 84402285	A	19841112	198525 B
AU 8435182	A	19850523				198528
JP 60120938	A	19850628	JP 84237707	A	19841113	198532
BR 8500542	A	19860909				198643
CA 1234011	A	19880315				198815

Priority Applications (No Type Date): US 83551893 A 19831115

Cited Patents: A3...8812; EP 72758; GB 1044554; No-SR.Pub; US 3692535

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 145550	A	E	36		

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE

Abstract (Basic): EP 145550 A

A shelf-stable cookie dough which is shelf stable under non-refrigerated conditions comprises (A) 5-20 wt.% of at least one edible viscous sweetener, (B) 10-25 wt.% sucrose, (C) 13-30 wt.% shortening, (D) 25-60 wt.% flour, (E) 0-3.5 wt.% of an encapsulated leavening agent and (F) 0-7% of an edible humectant, all percentages being w.r.t. the wt. of the dough and where (1) the total moisture content of the cookie dough = 6-12 wt.% and (2) the cookie dough has a water activity of less than ca. 0.72.

Pref. (i) (A) is a mixt. of corn syrups, esp. a corn syrup having a dextrose equiv. value of 36-71 and a high fructose corn syrup; (ii) (E) is present in an amt. of 0.5-2 wt.%; (iii) the prod. is a chocolate chip cookie dough, sugar cookie dough, peanut butter cookie dough or oatmeal cookie dough.

ADVANTAGE - The doughs are pumpable and formable and can be packaged in chub-packs i.e. in a sleeve or casing, esp. of plastics, sealed at each end. The doughs can be stored without refrigeration and are ready for immediate use without defrosting.

0/0

Title Terms: COOKIE; DOUGH; STORAGE; REFRIGERATE; CONTAIN; VISCOSITY; SWEET ; SUCROSE; SHORTENING; FLOUR; ENCAPSULATE; LEAVEN; AGENT; HUMECTANT

Derwent Class: D11

International Patent Class (Additional): A21D-002/00; A21D-006/00; A21D-010/00; A21D-013/08; A23L-001/16

22/7,DE/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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001815184

WPI Acc No: 1977-36167Y/197720

Storage-stable, premixed batter compsn. - incorporating edible acid to inhibit microbial growth, and encapsulated alkaline raising agent

Patent Assignee: SELANE DE FRAT SEVERINI (SELE)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4022917	A	19770510				197720 B

Priority Applications (No Type Date): US 75640173 A 19751212; US 72313088 A 19721207

Abstract (Basic): US 4022917 A

A storage stable food prod. is prepd. by (i) forming an aq. unleavened batter, (ii) adding an edible acid to lower the pH of the batter to <5; and (iii) adding an edible alkaline leavening agent encapsulated in a normally water-insoluble, edible material, using an amt. sufficient to raise the pH to 6-7. The acid inhibits bacterial

growth and so preserves the batter, but is isolated from the leavening agent by the encapsulation.

Batter premixes mfd. dry are stable at room or refrigeration temps. for indefinite periods when liquefied by the consumer. A batter premix was prepd. using a mixt. of lactic acid and HCl as edible acid, and NaHCO₃ as leavening agent, mixed with Crisco (RTM), which is a hydrogenated plastic shortening, and encapsulated in FIX-X (RTM) edible fat.

Title Terms: STORAGE; STABILISED; PREMIX; BATTER; COMPOSITION; INCORPORATE; EDIBLE; ACID; INHIBIT; MICROBE; GROWTH; ENCAPSULATE; ALKALINE; RAISE; AGENT

Derwent Class: D11

International Patent Class (Additional): A21D-010/04

22/7,DE/7 (Item 1 from file: 10)

DIALOG(R)File 10:AGRICOLA

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3325202 20356428 Holding Library: AGL

Particle size of encapsulated sodium bicarbonates: Effect on refrigerated batter and muffins baked in conventional and microwave ovens

Dorko, C.L. Penfield, M.P.

Champaign, Ill. : The Institute, c1961-

Journal of food science. May/June 1993. v. 58 (3) p. 579-582.

ISSN: 0022-1147 CODEN: JFDSA2

DNAL CALL NO: 389.8 F7322

Language: English

Includes references

Place of Publication: Illinois

Subfile: IND; OTHER US (NOT EXP STN, EXT, USDA; SINCE 12/76);

Document Type: Article

Refrigerated batter containing encapsulated sodium bicarbonate (ESB) differing in particle size (ESB 1 or powdered, ESB 5 or granular) and muffins baked in conventional and microwave ovens were evaluated. Batter was stored in glass jars at 0-1 degrees C and tested after 1 day and 1, 2, 3, and 4 wk. Batter pH increased from 1 day to 1 wk. Microwave-baked muffins were evaluated by sensory panelists as flatter than conventionally baked muffins. All baked muffins with ESB 1 had greater specific volumes than those with ESB 5. Conventionally baked muffins had lower Hunter L values than microwave-baked regardless of particle size which agreed with sensory evaluation.

DESCRIPTORS: muffins; refrigeration; batters; cooking; ovens; microwave ovens; sodium bicarbonate; encapsulation; particle size;

22/7,DE/8 (Item 1 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00834820 2001-Mv1377 SUBFILE: FSTA

Refrigerated and shelf-stable bakery dough products.

VenkatachalamNarayanaswamy; Daravingas, G. V.

General Mills Inc.

PATENT CO.: United States Patent 2001

PATENT NO.: US 6 261 613 B1

NOTE: US 504523 (20000215) [General Mills, Minneapolis, MN, USA]

DOCUMENT TYPE: Patent

LANGUAGE: English

A batter or dough consisting of capsules dispersed within a cookable fluid is described. The capsules comprise a lipid shell, that melts within a specific, narrow temp. range, encapsulating a leavening agent (chemical and/or yeast-based). The batter or dough is preserved using a combination of acidic pH, regulation of aw and cold storage, although chemical preservatives, such as potassium sorbate or calcium propionate, may also be added.

DESCRIPTORS (HEADINGS): BAKERY ADDITIVES; BAKERY PRODUCTS; COATINGS; DOUGH; ENCAPSULATION; PATENTS; PRESERVATION; YEASTS

DESCRIPTORS: BATTERS; RAISING AGENTS

22/7,DE/9 (Item 2 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00787736 1999-09-m0973 SUBFILE: FSTA

Method of preparing dough.

Laughlin, D. L.; DeMars, J. A.; Vargas, G. C.

Pillsbury Corp.

PATENT CO.: United States Patent 1999

PATENT NO.: US 5 855 945

NOTE: US 723919 (960930) (Pillsbury, Minneapolis, MN, USA)

DOCUMENT TYPE: Patent

LANGUAGE: English

A method for preparing dough from a batter containing 30-60 wt. % flour, 20-40 wt. % water and a leavening agent made up of 0.1-2.0 wt. % each of acidic and basic components is described. The 2 components of the leavening agent may be added separately so that they do not react with each other until the dough is formed. Uniform distribution of the leavening agent throughout the dough results in a higher specific vol. upon baking, ranging from 2 to 6 cc/g. (From En summ.)

DESCRIPTORS (HEADINGS): DOUGH; FERMENTATION; PATENTS

DESCRIPTORS: LEAVENING

22/7,DE/10 (Item 3 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs
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00778990 1999-06-m0695 SUBFILE: FSTA

Method of preparing dough.

Laughlin, D. L.; DeMars, J. A.

Pillsbury Co.

PATENT CO.: United States Patent 1999

PATENT NO.: US 5 858 440

NOTE: US 723863 (960930) (Pillsbury, Minneapolis, MN, USA)

DOCUMENT TYPE: Patent

LANGUAGE: English

A method for preparing a dough composition is described. 2 batters, 1 comprising water and a leavening acid and the second comprising water and a leavening base, are made separately and are then mixed with each other and with flour so that the resulting dough contains approx. 30-60 wt.% flour, 20-40 wt.% water, 0.1-2.0 wt.% leavening acid and 0.1-2.0 wt.% leavening base. The dough proofs rapidly and has a specific vol. ranging from approx. 2 to 5 cc/g. (From En summ.)

DESCRIPTORS (HEADINGS): DOUGH; PATENTS

22/7,DE/11 (Item 4 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00759184 1998-05-m0618 SUBFILE: FSTA

(The bakery industry in the sights. Microencapsulation of sodium bicarbonate.)

Anon.

ZfL, Internationale Zeitschrift fuer Lebensmittel-Technik, Marketing, Verpackung und Analytik 1997 , 48 (4) 14-15

DOCUMENT TYPE: Journal Article ISSN: 0722-5733

LANGUAGE: German

Microencapsulated sodium bicarbonate, manufactured by the CR100 process of the UK food ingredients manufacturer TasteTech, is described. This microencapsulated product releases the sodium bicarbonate only at a specified temp.; the encapsulated sodium bicarbonate is therefore stable in dough, etc. until the product is baked. Structure and sensory quality of bakery products made with microencapsulated sodium bicarbonate are identical to those of similar products made with conventional baking powder. Particle size is only 300 MUM, which prevents problems with local discoloration, etc. The CR100 process may also be applicable to other bakery additives, e.g. flavourings.

DESCRIPTORS (HEADINGS): BAKERY ADDITIVES; ENCAPSULATION

DESCRIPTORS: MICROENCAPSULATION; SODIUM BICARBONATE

DESCRIPTORS (TRADE/BRAND NAME): TasteTech

22/7,DE/12 (Item 5 from file: 51)
DIALOG(R)File 51:Food Sci.&Tech.Abs
(c) 2004 FSTA IFIS Publishing. All rts. reserv.

00726561 96-12-m0177 SUBFILE: FSTA

The effect of co-encapsulating baking powders and milkfat on dough performance.

Onwulata, C. I.; Smith, P. W.; Holsinger, V. H.
United States of America, --Institute of Food Technologists ((1996 Annual Meeting))

E. Reg. Res. Cent., 600 E. Mermaid Lane, Philadelphia, PA 19118, USA
1996 , 1996 IFT annual meeting: book of abstracts, p. 52 ISSN 1082-1236
DOCUMENT TYPE: Abstract of presentation
LANGUAGE: English

Effects of using baking powders co-encapsulated with milk fats and flour on functional properties of leavened dough were examined. 3 formulations (control, encapsulated and co-encapsulated) were tested; CO2 production rate, elasticity and complex viscosity of doughs prepared with these formulations were studied. Co-encapsulation allowed retention of 25-75% of rising potential, depending on type of baking powder used (single vs. double acting). Dough with co-encapsulated ingredients was significantly more elastic than the other formulations, and gas production potential was directly correlated with elasticity. An increase in complex viscosity in dough containing encapsulated baking powder indicated possible starch modification. (From En summ. Further abstracts of presentations from this meeting are covered in electronic formats of the FSTA database and may be traced via the corporate authors (CA) field, under United States of America, Institute of Food Technologists (1996 Annual Meeting). See also FSTA (1996) 28 11A2.) (LJW)

DESCRIPTORS (HEADINGS): Functional properties; Bakery additives; Dough; Fats milk

DESCRIPTORS: BAKING POWDERS; MILK FATS

GENERAL DESCRIPTORS: Additives; Bakery products; Fats; Physical properties

22/7,DE/13 (Item 6 from file: 51)
DIALOG(R)File 51:Food Sci.&Tech.Abs
(c) 2004 FSTA IFIS Publishing. All rts. reserv.

00668218 93-11-m0113 SUBFILE: FSTA

Particle size of encapsulated sodium bicarbonates: effect on refrigerated batter and muffins baked in conventional and microwave ovens.

Dorko, C. L.; Penfield, M. P.
Eastman Chemical Co., Kingsport, TN, USA
Journal of Food Science 1993 , 58 (3) 579-582
NOTE: 12 ref.

DOCUMENT TYPE: Journal Article ISSN: 0022-1147

LANGUAGE: English

(Sensory properties of) refrigerated batter containing encapsulated sodium bicarbonate (ESB) differing in particle size (ESB 1 (powdered), ESB 5 (granular) and muffins baked in conventional and microwave ovens were evaluated. Batter was stored in glass jars at 0-1 DEGREE C and tested after 1 day and 1, 2, 3 and 4 wk. Batter pH increased from 1 day to 1 wk. Microwave-baked muffins were evaluated by sensory panellists as flatter than conventionally baked muffins. All baked muffins with ESB 1 had greater specific vol. than those with ESB 5. Conventionally baked muffins had lower Hunter L values than microwave-baked regardless of particle size, in agreement with sensory evaluation. (See also preceding abstr.) (IFT(MMB))

DESCRIPTORS (HEADINGS): Cakes; Bakery additives; Particles; Baking; Microwaves

DESCRIPTORS: SODIUM; SIZE; MUFFINS

GENERAL DESCRIPTORS: Bakery products; Cooking; Additives

22/7,DE/14 (Item 7 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00668217 93-11-m0112 SUBFILE: FSTA

Melt point of encapsulated sodium bicarbonates: effect on refrigerated batter and muffins baked in conventional and microwave ovens.

Dorko, C. L.; Penfield, M. P.

Eastman Chemical Co., Kingsport, TN, USA

Journal of Food Science 1993 , 58 (3) 574-578

NOTE: 15 ref.

DOCUMENT TYPE: Journal Article ISSN: 0022-1147

LANGUAGE: English

(Effects of sodium bicarbonate encapsulated melt point (EMP) on sensory properties of muffins made from refrigerated batter and baked in conventional and microwave ovens were studied.) Muffin batter was prepared with (encapsulated sodium bicarbonate) of 3 EMP (43, 52 and 60 DEGREE C) and tested after 1 day (0 wk) and 1, 2, 3 and 4 wk. Batter pH increased from 0 to 1 wk. Specific vol. of microwave-baked muffins containing EMP 43 or 60 DEGREE C increased with storage and were higher (than those of other muffins); EMP 52 DEGREE C microwave-baked muffins had the lowest specific vol. Conventionally baked muffins were darker than microwave-baked muffins. Panellists evaluated microwave-baked muffins as flatter than conventionally baked muffins. (IFT(MMB))

DESCRIPTORS (HEADINGS): Cakes; Thermophysical properties; Bakery additives; Microwaves; Baking

DESCRIPTORS: SODIUM; M.P.; MUFFINS

GENERAL DESCRIPTORS: Bakery products; Additives; Physical properties

22/7,DE/15 (Item 8 from file: 51)
DIALOG(R)File 51:Food Sci.&Tech.Abs
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00662107 93-07-m0009 SUBFILE: FSTA
Encapsulated ingredients for the baking industry.
Janovsky, C.
Balchem Corp., Slate Hill, NY, USA
Cereal Foods World 1993 , 38 (2) 85-87
NOTE: 8 ref.

DOCUMENT TYPE: Journal Article ISSN: 0146-6283

LANGUAGE: English

Use of encapsulated bakery ingredients is surveyed with reference to commonly used encapsulation methods and materials and commercial applications in the baking industry. Headings include: Encapsulation technology (encapsulation methods, encapsulating media); Matching ingredients to performance requirements; Commercial types and applications (encapsulated sodium bicarbonate, encapsulated acidulants, encapsulated preservatives, encapsulated dough conditioners, encapsulated vitamins and minerals); and Future directions. (ALR)

DESCRIPTORS (HEADINGS): Encapsulation; Bakery products

GENERAL DESCRIPTORS: Cereal products

22/7,DE/16 (Item 9 from file: 51)
DIALOG(R)File 51:Food Sci.&Tech.Abs
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00644823 92-07-t0058 SUBFILE: FSTA
Heat stabilized flavoring agents coated with hydrogenated castor oil.
Rotman, A.; Blatt, Y.
Bio-Dar Ltd.

PATENT CO.: United States Patent 1992

PATENT NO.: US 5 098 725

NOTE: US 501079 (900329) (Bio-Dar, Rehovot, Israel)

DOCUMENT TYPE: Patent

LANGUAGE: English

Very small particles of flavouring materials which are labile to heat and aqueous media are coated with a material containing hydrogenated castor oil which has a m.p. of 80-100 DEGREE C. The coating remains stable during the initial baking process when the water concn. in dough or batter is relatively high. After several min, when most of the water in the dough has evaporated and the temp. is approx. 100 DEGREE C, the coating melts leaving the active ingredient exposed in the product. A leavening agent may also be encapsulated in the coating which will release a gas at a predetermined temp. causing the coating to rupture. (From En summ.) (WJS)

DESCRIPTORS (HEADINGS): Encapsulation; Patents; Flavourings

DESCRIPTORS: MICROENCAPSULATION; UNITED STATES OF AMERICA

GENERAL DESCRIPTORS: Additives

22/7,DE/17 (Item 10 from file: 51)
DIALOG(R)File 51:Food Sci.&Tech.Abs
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00375281 89-05-v0111 SUBFILE: FSTA
Accelerated proofing of refrigerated doughs.
Katz, E.; Edmonson, D. A.
Anheuser-Busch Co. Inc.
PATENT CO.: United States Patent 1988
PATENT NO.: US 4 792 456
NOTE: US 922524 (861024) (Anheuser-Busch, St. Louis, MO, USA)
DOCUMENT TYPE: Patent
LANGUAGE: English

A process for accelerating the proofing of chemically leavened dough when the ambient temp. is LESS THAN 70 DEGREE F, involves heating the dough in a proofing tunnel to an average temp. of about 80-90 DEGREE F; allowing the dough to develop about 10 psi pressure; and refrigerating the dough in a sealed container so that the internal pressure reaches about 20 psi. A modification using palm oil encapsulated glucono-DELTA-lactone acidulant and sodium bicarbonate as the chemical leavening system allows the dough to be refrigerated immediately after it leaves the proofing tunnel and still develop 20 psi internal pressure in the dough container. (AS)

DESCRIPTORS: Fermentation--dough, proofing acceleration of refrigerated, Patent; Refrigeration--dough, proofing acceleration of refrigerated, Patent; Dough--proofing acceleration of refrigerated dough, Patent; Bakery products

22/7,DE/18 (Item 1 from file: 53)
DIALOG(R)File 53:FOODLINE(R): Food Science & Technology
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00996171 FOODLINE ACCESSION NUMBER: 620328
Improving on nature: microencapsulation.
Klahorst S
Food Product Design (July), 13 (supplement 'Microencapsulation'), 1-6 (0 ref.)
2003
PUBLISHER: Weeks Publishing Co. Address: 3400 Dundee Road, Suite 100, Northbrook, IL 60062-2333, USA. Telephone: +1 (847) 559 0385. Fax: +1 (847) 559 0389. Email: weeksfpd@aol.com Web: www.foodproductdesign.com
ISSN NO: 1065-772X
LANGUAGE: English
DOCUMENT TYPE: Journal article

FOODLINE UPDATE CODE: 20031010

ABSTRACT: Microencapsulation has been used across a diverse range of products and applications to improve preservation, fortification, flavour and quality, leading to more marketable products. Microencapsulation protects, brings stability to and selectively releases nutrients and functional ingredients. Coatings act as physical barriers, surrounding ingredients. Core ingredients are released via a variety of mechanisms. Coatings can diffuse slowly as they dissolve in liquid such as stomach acid, or dissolve quickly as they absorb moisture in food. The balance between protection and delivery is determined by the selection and formulation of the coating material. Microencapsulation of leavening agents with lipid-based coatings that melt at baking temperatures has enabled delivery of leavening ingredients in the baking industry, triggering reactions in dough at the most effective time. A more recent development has been yeast microencapsulation to ensure yeast viability. Encapsulation of acidulants and oxidizing agents allows use of these ingredients near the end of the proof, providing desired oven spring and consistent quality. Encapsulated acid protects protein in sausages from acid exposure until heating, thus enhancing sausage quality. Microencapsulation can prevent negative interactions between meat systems and salt levels that affect texture. Application of microencapsulation for protection of probiotics, micronutrients and flavourings is discussed.

SECTION HEADING: PROCESSING

DESCRIPTORS: ACIDS; ACIDULANTS; APPLICATIONS; BAKERY ADDITIVES; BAKERY PRODUCTS; COATINGS; DOUGH; ENCAPSULATION; FLAVOURINGS; LEAVENING AGENTS; MEAT PRODUCTS; MICROENCAPSULATION; MICRONUTRIENTS; NUTRIENTS; OXIDANTS; PROBIOTICS; PROTECTION; RELEASE; SAUSAGES; STABILITY

22/7,DE/19 (Item 2 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Food Science & Technology

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00961609 FOODLINE ACCESSION NUMBER: 325657

Particle size of encapsulated sodium bicarbonates: effect on refrigerated batter and muffins baked in conventional and microwave ovens.

Dorko C L; Penfield M P

Journal of Food Science 58 (3), 579-582 (12 ref.)

1993

ISSN NO: 0022-1147

LANGUAGE: English

DOCUMENT TYPE: Journal article

FOODLINE UPDATE CODE: 19931005

ABSTRACT: The particle size of encapsulated sodium bicarbonate used in refrigerated dough batters may have an effect on their baking

performance. This study examined the effects of sodium bicarbonate encapsulate particle size on refrigerated muffin batter characteristics over a period of 4 weeks' storage, and evaluated the sensory and quality characteristics of the muffins baked in either conventional or microwave ovens. The results of the study suggested that there was a complex interaction between sodium bicarbonate encapsulate particle size, other ingredients, and method of cooking, and that these variables should be taken into account for selection of the most appropriate baking method.

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: BAKING; CHILLED; DOUGH; ENCAPSULATION; MICROWAVE COOKING; MICROWAVES; MICROWAVING; MUFFINS; OVENS; PARTICLE SIZE; PARTICLES; QUALITY; SIZE; SODIUM BICARBONATE

22/7,DE/20 (Item 3 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Food Science & Technology

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00961608 FOODLINE ACCESSION NUMBER: 325656

Melt point of encapsulated sodium bicarbonates: effect on refrigerated batter and muffins baked in conventional and microwave ovens.

Dorko C L; Penfield M P

Journal of Food Science 58 (3), 574-578 (15 ref.)

1993

ISSN NO: 0022-1147

LANGUAGE: English

DOCUMENT TYPE: Journal article

FOODLINE UPDATE CODE: 19931005

ABSTRACT: Refrigerated muffin batters may have improved baking performance when the leavening agents are microencapsulated to protect them from reaction. Sodium bicarbonate can be encapsulated using various methods, and its reaction with acid is delayed until the melt-point of the encapsulating agent is reached. This study examined the effects of different encapsulate melt points on muffin batter characteristics, and evaluated the sensory and quality characteristics of muffins baked from these batters in conventional or microwave ovens. The results indicated that encapsulated sodium bicarbonate melt point had varied and complex effects on muffins and muffin batter. Microwave cooking was not recommended for some of these refrigerated batters as the resulting muffins had several quality defects.

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: BAKING; BAKING PROPERTIES; ENCAPSULATED; ENCAPSULATING AGENTS; EVALUATION; MELTING; MICRO; MICROWAVE COOKING; MICROWAVE PROPERTIES; MICROWAVES; MICROWAVING; MUFFINS; OVENS; PERFORMANCE; PROPERTIES; QUALITY; SODIUM BICARBONATE; TEMPERATURE

22/7,DE/21 (Item 4 from file: 53)
DIALOG(R)File 53:FOODLINE(R): Food Science & Technology
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00651024 FOODLINE ACCESSION NUMBER: 476391

Production of pasta.

Hsu J Y; Wedral E R; Gum E K; Kim H W

PATENT ASSIGNEE: Soc Prod Nestle SA

PATENT: JP 10042813 A

APPLICATION COUNTRY: US (DATE(S):19960513)

PRIORITY APPLICATION DATE: 19970512

NOTES: Date of publication: 17.2.98

X-REFERENCE: PASTA AND RICE

LANGUAGE: Japanese

SUMMARY LANGUAGE: English

DOCUMENT TYPE: Patent

FOODLINE UPDATE CODE: 19980923

ABSTRACT: The method of production of this pasta is described as follows.

An edible acid soluble in hot water and insoluble in cold water (malic, lactic, citric, glucono-delta-lactone) is encapsulated in a modified starch, maltodextrin, gelatin, mono- or diglyceride, silicon dioxide, caseinate, zein, gluten or a gummy substance. This is mixed with the pasta flour at 0.1-2.5%. The dough is processed into pasta, which is then treated with steam, water and steam again. The pasta is then packed under heat treatment or under modified-atmosphere packaging. This chilled and acidified pasta has good texture and shelf-life.

SECTION HEADING: CEREAL PRODUCTS

DESCRIPTORS: ACIDIFIED PASTA; ACIDULANTS; CEREAL PRODUCTS; CHILLED CEREAL PRODUCTS; CHILLED FOODS; CHILLED PASTA; ENCAPSULATED ACIDULANTS; JAPANESE PATENT; PACKAGING; PASTA; PATENT; PRODUCTION

22/7,DE/22 (Item 5 from file: 53)
DIALOG(R)File 53:FOODLINE(R): Food Science & Technology
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00390749 FOODLINE ACCESSION NUMBER: 424854

TasteTech's cake trial. (CR100 sodium bicarbonate from the UK.)

Anon

Food Trade Rev. (November), 754 (0 ref.)

1996

LANGUAGE: English

DOCUMENT TYPE: Journal article

FOODLINE UPDATE CODE: 19970122

ABSTRACT: This microencapsulated product, which has a particle size of less than 300 microns, can be used in the manufacture of baked goods and frozen cake mixtures. The encapsulation process ensures that carbon dioxide is not released into the batter until it is heated. The Company

claims that the texture and appearance of the end-product is similar to that of baked goods made with traditional baking powder.

SECTION HEADING: OLD MATERIAL

DESCRIPTORS: ADDITIVE; BAKERY PRODUCT; CR100 SODIUM BICARBONATE;
ENCAPSULATED SODIUM BICARBONATE; RAISING AGENT; SODIUM BICARBONATE;
TASTETECH; UK

22/7,DE/23 (Item 1 from file: 79)
DIALOG(R)File 79:Foods Adlibra(TM)
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305152 01020192

METHOD OF PREPARING DOUGH

Author(s): Laughlin D L; DeMars J A; Vargas G C

Assignee Name(s): Pillsbury Company

United States Patent, December 26 2000

CODEN: USXXAM

Publication Date: 20001226

Patent Country/Kind: US

Patent No.: US 6165533 Class: (426549000)

Doc Type: PATENT

A method of preparing a dough composition in which the encapsulated complementary leavening agent does not react with the leavening agent until the dough is formulated.

22/7,DE/24 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
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13269465 PASCAL No.: 97-0542709

Effect of coencapsulating milkfat and leavening agents on batter rheology
ONWULATA C I; KONSTANCE R P; SMITH P W; HOLSINGER V H

U.S. Department Agriculture, Agricultural Research Service, Eastern
Regional Research Center, 600 East Mermaid Lane, Wyndmoor, PA 19038, United
States

Journal: Cereal foods world, 1997, 42 (10) 826-829

ISSN: 0146-6283 CODEN: CFWODA Availability: INIST-4796;
354000069886130060

No. of Refs.: 14 ref.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: United States

Language: English

English Descriptors: Instant product; Elasticity; Physical properties;
Color; Biscuit; Baking quality; Butter oil; Baking powder; Encapsulation;
Property formulation relationship; Rheological properties; Dough

French Descriptors: Produit instantane; Elasticite; Propriete physique;
Couleur; Biscuit; Aptitude boulangere; Huile beurre; Levure chimique;
Encapsulation; Relation formulation propriete; Propriete rheologique;
Pate cuisson

Spanish Descriptors: Producto instantaneo; Elasticidad; Propiedad fisica;
Color; Bizcocho; Aptitud panadera; Lubricante mantequilla; Levadura
quimica; Encapsulacion; Relacion formulacion propiedad; Propiedad
rheologica

Other Descriptors: Elastizitaet; Physikalische Eigenschaft; Farbe;
Rheologische Eigenschaft

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22/7,DE/25 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal
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11222921 PASCAL No.: 94-0040644
Particle size of encapsulated sodium bicarbonates : effect on
refrigerated batter and muffins baked in conventional and microwave ovens
DORKO C L; PENFIELD M P
Eastman Chemical Co., Kingsport TN, USA
Journal: Journal of food science, 1993, 58 (3) 579-582
ISSN: 0022-1147 CODEN: JFDSAZ Availability: INIST-713;
354000034669440290

No. of Refs.: 13 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: USA
Language: English

Refrigerated batter containing encapsulated sodium bicarbonate (ESB) differing in particle size (ESB 1 or powdered, ESB 5 or granular) and muffins baked in conventional and microwave ovens were evaluated. Batter was stored in glass jars at 0-1 SUP o C and tested after 1 day and 1, 2, 3, and 4 wk. Batter pH increased from 1 day to 1 wk. Microwave-baked muffins were evaluated by sensory panelists as flatter than conventionally baked muffins. All baked muffins with ESB 1 had greater specific volumes than those with ESB 5. Conventionally baked muffins had lower Hunter L values than microwave-baked regardless of particle size which agreed with sensory evaluation

English Descriptors: Organoleptic properties; Encapsulation; Paste; Cake;
Baking powder; Hydrogencarbonates; Grain size analysis; Microwave oven;
Refrigerated storage; Bakery product

French Descriptors: Propriete organoleptique; Encapsulation; Pate; Gateau; Levure chimique; Hydrogenocarbonate; Granulometrie; Four hyperfrequence; Entreposage frigorifique; Produit cuisson

Spanish Descriptors: Propiedad organoleptica; Encapsulacion; Pasta; Pastel; Levadura quimica; Hidrogenocarbonato; Granulometria; Horno hiperfrecuencia; Almacenamiento frigorifico; Producto panaderia

Other Descriptors: Teilchengroessenbestimmung

22/7,DE/26 (Item 3 from file: 144)
DIALOG(R)File 144:Pascal
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11222920 PASCAL No.: 94-0040643
Melt point of encapsulated sodium bicarbonates : effect on refrigerated batter and muffins baked in conventional and microwave ovens
DORKO C L; PENFIELD M P
Univ. Tennessee, agricultural exp. stn. food sci. technology, Knoxville TN 37901-1071, USA
Journal: Journal of food science, 1993, 58 (3) 574-578
ISSN: 0022-1147 CODEN: JFDSAZ Availability: INIST-713;
354000034669440280
No. of Refs.: 16 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: USA
Language: English
Refrigerated muffin batter containing encapsulated sodium bicarbonates (ESB) differing in encapsulate melt points (EMP) and muffins baked from the batters in conventional and microwave ovens were evaluated. Muffin batter was prepared with ESB of 3 EMP (43, 52 and 60 SUP o C) and tested after 1 day (0 wk) and 1, 2, 3, and 4 wk. Batter pH increased from 0 wk to 1 wk. Specific volumes of microwave-baked muffins containing EMP 43 or 60 SUP o C increased with storage and were highest; the EMP 52 SUP o C microwave-baked muffins had the lowest specific volumes. Conventionally baked muffins were darker than microwave-baked muffins. Panelists evaluated microwave-baked muffins as flatter than conventionally baked muffins

English Descriptors: Organoleptic properties; Encapsulation; Paste; Cake; Baking powder; Hydrogencarbonates; Bakery product; Microwave oven; Refrigerated storage; Melting point

French Descriptors: Propriete organoleptique; Encapsulation; Pate; Gateau; Levure chimique; Hydrogenocarbonate; Produit cuisson; Four hyperfrequence ; Entreposage frigorifique; Point fusion

Spanish Descriptors: Propiedad organoleptica; Encapsulacion; Pasta; Pastel;

Levadura quimica; Hidrogenocarbonato; Producto panaderia; Horno
hiperfrecuencia; Almacenamiento frigorifico; Punto fusion

Other Descriptors: Schmelztemperatur
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